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CROP-INSURANCE

S. VAN DER WIJK

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STELLINGEN

I

De beteekenis van de handelswegen, zooals deze uit historisch-geographische invloeden zijn gegroeid, is van blijvenden aard.

II

De landbouwwiskunde heeft geen vat op de practische uitvoering der oogstverzekering. Berekeningen van veldcorrecties zijn hier niet van toepassing.

III

De oude plaats van ons land als walvischvarende mogendheid dient zooveel mogelijk te worden hersteld.

IV

De verzekering van paarden en rundvee geschiedt in het algemeen doelmatiger bij een z.g. speculatieve, dan bij een onderlinge verzekeringmaatschappij.

V

De ingenieursstudie voor tropischen landbouw behoort tevens in Nederlandsch Oost-Indië plaats te hebben.

VI

De studie aan de Landbouw Hoogeschool draagt in sterke mate een natuurwetenschappelijk karakter. Met name worden de economische en sociale wetenschappen te stiefmoederlijk bedeed. Dit pijnlijk gemis dient weggenomen te worden. Tot het verkrijgen van een goed inzicht in de structuur dienen bedoelde wetenschappen ter completeering van de landbouwkundige kennis opgenomen te worden in de ingenieursstudie,

VII

In ons land dient men te komen tot de fabricatie van bepaalde landbouwwerktuigen.

VIII

De invoering van het in dit proefschrift toegepaste principe, waarbij het met premie te belasten bedrag der verzekering wordt bepaald aan het einde der verzekeringsperiode, elimineert de mogelijkheid van een rechtsstrijd ten aanzien van de begrippen verzekerbare en verzekerde waarde, alsmede van het begrip verzekerde som in dit zelfde verband.

IX

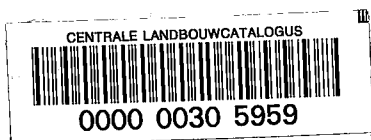
Volgens het Engelsche verzekeringsrecht blijft de verzekering slechts van kracht, zoolang de daaronder vallende goederen de reis volgen van de in de polis genoemde route. Volgens het Nederlandsche recht blijft de verzekering ook van kracht, indien de schipper, door omstandigheden daartoe gedwongen, van koers verandert. Dit laatste is een voor den handel verkieslijker vorm.

X

Het Nederlandsche Wetboek van Koophandel geeft in art. 251 een subjectieve beoordeeling van verzwijging en verkeerde of onwaarachtige opgave. De Engelsche Marine Insurance Act eischt in de sections 17 t/m 21 een objectieve beoordeeling. Deze laatste methode verdient de voorkeur.

CROP-INSURANCE

*Aan mijn Vrouw
Aan mijn Clubgenooten*



Dit proefschrift met stellingen van

SYTSKO VAN DER WIJK

Landbouwkundig Ingenieur, geboren te Batavia
op 23 Juni 1908, is goedgekeurd door den
promotor, Dr. ir. G. MINDERHOUD, hoogleeraar
in de landhuishoudkunde.

*De Rector Magnificus
der Landbouwhoogeschool:*

S. C. J. OLIVIER.

Wageningen, 10 November 1945.

CROP-INSURANCE

PROEFSCHRIFT

TER VERKRIJGING VAN DEN GRAAD VAN
DOCTOR IN DE LANDBOUWKUNDE
OP GEZAG VAN DEN RECTOR MAGNIFICUS
Dr. Ir. S. C. J. OLIVIER, HOOGLEERAAR
IN DE SCHEIKUNDE, TE VERDEDIGEN
TEGEN DE BEDENKINGEN VAN EEN COM-
MISSIE UIT DEN SENAAAT DER LANDBOUW-
HOOGESCHOOL TE WAGENINGEN OP
DONDERDAG, 20 DECEMBER 1945, TE 13.30 UUR

DOOR

S. VAN DER WIJK



N.V. DRUKKERIJ M. WYT & ZONEN — ROTTERDAM

15n 104203

Bibliotheek
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Wageningen

PREFACE

As a preface to this thesis a few words of introduction would not be out of place.

As an explanation of the contents it is herewith stated that this thesis was written at a time burdened by an enemy occupation. Taken by surprise in May, 1940, the country's frontiers were solidly closed as far as communication with those countries allied with the Netherlands was concerned. These circumstances did not contribute to a greater completeness of the subject under consideration.

For the time being the liberty of movement in this country was not interfered with. This, and the reduced activity in my own office-life, gave me the opportunity to attend to many matters of quite a different nature. In the main, it is characteristic of the Dutch Nation (and I myself am a son of this country) not to give in, even under the most oppressing circumstances. Everywhere one could observe how in spite of the extreme hindrances, new plans were formed by various private and public bodies, all being directed towards the Future, and supported by the heartening words of confidence of H. M. the Queen and the Royal Netherlands' Government in London.

It was during this period of occupation that the birth took place of an insurance project for agricultural crops. Having faith in this project and the conviction that principally no objection could be brought forward against the insurance of field-crops in general, the idea was worked out. The initial composition of the scheme was sent to a number of Dutch farmers and to the Agricultural Economical Institute at the Hague. It is with feelings of great obligation that I mention the support given by this Institute. In fact, the Manager Mr. HORRING, brought to my attention a publication of the U. S. Department of Agriculture, and it was my wish to commend this U. S. scheme which induced me to write this treatise.

To the farmers mentioned, and in particular to my friend B. DE BOER JOHZN. at Heveskes, I render my sincere thanks for

the many and very straight-forward talks and extensive correspondence on the subject. These all contributed to my coming to a less theoretical and a more practical view on the circumstances of farmers' Life.

Also my contemporary, ir. R. SMEDEMA at Rotterdam, gave me many suggestions for which I am truly grateful.

The figures used in this thesis were kindly produced by the Managers of some large farm industries, while also the Agricultural Economical Institute at the Hague furnished me with a rich source of valuable information.

If you, reader, pick up "Crop insurance" and make yourself familiar with the contents, you are not likely to have a feeling of objective satisfaction. However, I will be satisfied with the idea, that you will appreciate and agree with the possibilities which the insurance of crops have for this country. Fire insurance was centuries behind in comparison with Marine insurance and a primitive form of Life insurance. Only laboriously the field was cleared for the thought, that the value of buildings and their contents come within the scope of consideration for being secured under an insurance policy. Well then, why should the insurance of agricultural crops at one stroke, become popular with the public concerned?

The rather uncertain outlook with regard to the utility of crop-insurance, has not induced you, very learned MINDERHOUD, to refrain from giving me all information according to your best knowledge. Your frank statement, that this particular subject is actually beyond your capacity, can only contribute to my more profound gratitude. In many ways you were forced to steer by the compass of an apprentice, which is a slightly unusual situation. Besides, the fact that I am not an adept in the science of the Dutch agricultural faculty at this University College in the proper meaning of the word, had the result that you were bound to give detailed attention to my, partly unschooled knowledge of the construction of the homeland agriculture as a whole. The fact of being unskilled myself in this field of science, made things more complicated for me.

Very learned VAN DER STOK. Actually you are the only Professor at this University College, who now nearly ten years ago saw the completion of my training as a graduate in the science of Tropical agriculture. I look back on that period with the pleasantest memories. May I wish you from this place, that one day soon you may lecture and demonstrate, without restrictions, due to lack of the proper materials on this moment, the tropical botany and phytography in the new surroundings, worth of the importance of the large and instructive subject for which you know so well to rouse your students' profound interest and admiration.

With great regret I remember the time during which the very learned NEYTZEL DE WILDE initiated us into the complicated relations of the Indonesian world belonging to our territory. I would have appreciated it so much to cross swords once again as was done during our private talks.

With great anxiety I think of the circle of old clubmembers. Most of them chose Insulinde as their future. The uncertainty about their fate fills me with great concern. I am sure that they made a bold stand against the Japanese usurpation. May their attitude contribute to a satisfactory solution of the problems now acute, a solution, which will be in proper accordance with the traditional gratifying colonial policy of the Dutch Government, extending to all sections of the population of this richly varied community.

Finally, my gratitude to the printers for their careful attention bestowed on this work.

October, 1945.

CROP-INSURANCE

Stepping over the threshold, from the grey past (though interesting enough to give the matter a full show) into the younger history of insurance, it will be useful to look back at the period preceding the latest developments in relation to the matter subjected to our consideration.

Before 1809 we in Holland were bound to act according to the so-called "keuren and plackaten", issued on behalf of commercial trading in general. Those decrees and regulations also contained orders in respect of what, by that time, was of vital interest to insurers.¹⁾

With the annexation of the Netherlands by France, commercial life became subject to the Code de Commerce (issued in 1807 and originated from the old French "Ordonnance de la Marine Ao. 1681", as far as insurances are concerned) and, being subjected to this latter code, all the old "keuren and plackaten" were rejected. With this rejection a most interesting part of Dutch law-regulations was ended.

The Code de Commerce lasted after the restoration of our independent State up to 1838, and by then, a committee of Dutch lawyers had finished their composition of a "brand-new" series of articles, known as the "Wetboek van Koophandel". This new Code had a profound discussion in Parliament.²⁾ Much of the French conception remained, but for all people who hang on to tradition, there is the consolation that one can find also in this new Code, the remnants of our good old "keuren & plackaten" as far back as the sixteenth century.

During the night of the 30th September and the 1st October, 1838, exactly at midnight, the new Commercial Code came into force. Although since then, the Code has been subjected to many alterations, still, the wording and meaning bear traces of a long past (also compare the wording of the present bourse-marine-policy).

¹⁾ DORHOUT MEES; page 36, etc.

²⁾ NOLST TRENITE; page 6, etc. VOORDUIN; IX.

At the same time of the codification of the Commercial laws, we notice the foundation of many insurance companies, joint-stock corporations as well as mutual ones. The difference between these two will be obvious. The joint-stock companies issue their policies at fixed rates and do not know the system of levies. The mutual institutions do not always work on a fixed-rate basis and introduced the system of levies, with even the possibility of further additional levies, etc. DORHOUT MEES ¹⁾ formulates the design of the mutual companies in such a way, that the advantage and the disadvantage of the company are credited to the account of the assured themselves, and not to the account of the insurer; or, another way to characterize the position is, that the mutual companies are based on the principle of collaboration (or co-operation) with those who bear the risk of insurance. ²⁾ Hage further writes that the difference between the joint-stock and the mutual companies can be formulated in stating the fact that the extension of the sphere of interest for the first mentioned company is by means of insurance brokers and agencies. The mutual company excludes the activity of third parties and works in more direct unification with the assured.

The parties interested in the joint-stock companies are qualified as "policy-holders", those of the mutual ones, as "members", members in the joint enterprise to tackle the difficulties of insurance business. In fact the latter also have a policy, often indicated as a membership-certificate in the so and so mutual insurance corporation.

The policy-holders do not take part in the commercial enterprise of a company, while according to the regulations of membership, the latter sometimes do. Outwardly the position for the policy-holders and members is the same, except for a number of disadvantages due to the mutual form of insurance, about which we shall hear in a later chapter.

Before reviewing the three articles of our Commercial Code dealing with the insurance of crops on the fields, we would do well first to try to consider the mere principle elementary sections to which we shall have to refer several times, and which

¹⁾ DORHOUT MEES; page 77.

²⁾ HAGE; page 31.

sections are of general importance for the knowledge of insurance law (section = article).

What are these elementary sections? We will study some of them only as far as they are of interest to us. The first two we will refer to, are the sections 246 & 249.¹⁾ In particular, section 246 reflect the principles of every kind of insurance.

Art. 246: "Insurance is an agreement by which the insurer undertakes at a premium, to pay the assured the indemnity against losses, misfortune, damage or loss of expected profit, which the latter may suffer through unforeseen incidents."

Art. 249: "For loss or misfortune due to any defect, inherent vice or due to the kind and nature of the subject matter insured and directly arising therefrom, the insurer is never to be held liable, even if specifically covered."

Both sections are to be found in the Ninth Division of the Tenth Book of the Dutch Commercial Code.

By examining these two sections we note the following features. At first we note that every transaction, every enterprise, every matter whatsoever, in general is an insurable interest, provided that *the causes which result in the loss, misfortune or failure of well expected profit* (which causes directly effect the insured interest) *are beyond any question, unforeseen and unexpected*. In other words the causes effecting the property of the assured have to lie beyond his control. Theft, fire, collision, etc. due to the negligence of the assured, are not covered by any policy. Only if the theft, the fire or the collision is caused by others or by some external cause, is the full damage covered by the policy. It is most unusual to insure the soldier who is leaving for the battlefield the next morning, against the perils of that infernal battlefield, unless perhaps on very onerous conditions, which would be of no interest to this particular soldier neither would it be wise to insure eggs just imported from Holland, against deterioration, if those eggs are coming straight out of the coldstorages of the tropical warehouse at Sourabaya. It will be quite obvious that those eggs will deteriorate within the first few hours of their arrival in the tropics. So in general the rule is:

¹⁾ Section 246; DORHOUT MEES & NOLST TRENITE in several chapters. Section 249; DORHOUT MEES, page 217, etc. 246/249; MOLENGRAAF, page 233.

"Losses wilfully caused by the assured should not be indemnified, as such indemnification would be contrary to good morals and become nul and void." ¹⁾

It will be clear, that there is quite a lot of jurisprudence about these two articles, but it is outside the scope of this work to enter into further details. The two items mentioned are merely examples. Their construction is clear enough, if the meaning of these two sections is well understood.

So if there is the right appreciation of the wording, the dominating provision has to be kept in mind, that everything which is subject to damage, loss, etc., is in principle insurable, provided that the circumstances are abnormal, unexpected and unforeseen. This provision however, is not to be mixed up with the consideration of the following kind. If for instance, a crop is still on the field, this crop is undoubtedly threatened by hail, storm, rain, inundation, drought, etc. Nevertheless it will be possible to insure the said crop against damage by hail, etc. The damage inflicted, need not necessarily amount to a total loss. The shower may pass by, or not afflict the particular area to any great extent. Besides, the crop may be able to regenerate for the greater part or even entirely.

As a rule there is a certain sequence in the events. ²⁾ From the various causes resulting in a loss we have taken that special one, against which we insure ourselves, and which, in general causes the damage. ³⁾

PALTHE refers to MOLENGRAAFF when he writes: "As the cause of a loss one has to consider the most remote occurrence which, according to the usual course of events can result in the same." ⁴⁾

Assuming we have insured a cargo of artificial fertilizer from the State-mines to the Wieringermeer, passing the Yselmeer. This cargo is subject to all risks and to the treachery of this inland-sea. Although one knows this, the underwriter is quite prepared to accept the risks of the voyage from the

¹⁾ MOLENGRAAFF; page 243.

²⁾ PALTHE; page 46/47.

³⁾ We may refer here to the doctrine of the "causa remota" as it is learned in this country, which doctrine states that we have to determine via the chain of causations, the actual relation between the loss and its cause.

⁴⁾ PALTHE; page 47.

State-mines to its destination in the North of Holland. Why? Because it remains to be seen whether or not the cargo of fertilizer will in fact be effected by the perils of the Yselmeer. The English policy on marine-insurance calls these unforeseen events "acts of God". The causes of damage are not in human hands and if they become "acts of man", the cause of the damage will be outside the scope of the insurance policy. In this case it is a matter of wilful damage by the assured, his agents, or accomplices.

Daily people walk in the streets, sit in buses or trains or tramcars, ride their bicycles, drive motorcars or horses, or swim in lakes and swimming pools, are outside their homes during a thunderstorm or handle threshing-machines. Why should these people not be an insurable interest within the meaning of section 246?

DORHOUT MEES writes on page 1 of his book, to which we have frequently already referred: "in theory a merchant may want to be insured against the loss of profit due to a fall of the marketprice. It will however be obvious, that in doing so he would abdicate as a merchant on behalf of his insurer." Quite true! We will come across this point again in a later chapter, when considering the question of the insurable value. It may be now brought forward, that in principle such a clause can never be the real intention of an insurance policy. One can out-balance by money the perils menacing the insured interest, provided again and again, that these perils are beyond the nature of the matter covered by the insurance-policy, whether issued by a joint-stock- or a mutual corporation.

The meaning of the two articles under discussion will now be clear. It was thought necessary to give this short explanation, in order to obtain the fullest possible view on the considerations which will lead to the study of crop-insurance as a matter of general interest.

We may refer to one more section of our Commercial Code, before discussing the agricultural chapter thereof. It is section 251 which claims our attention for a moment. The section reads:

"All unreal or untrue information or any concealment of circumstances known to the assured, though on his side done in the utmost good faith,

which circumstances are of such a kind that the contract should not, or not on the same conditions, have been agreed upon if the insurer had been informed about the actual position of affairs, makes the insurance void.”

Typical in this relation is the wording of section No. 18 of the Marine Insurance Act, 1906.¹⁾ We may quote some parts of this section:

“... the assured must disclose to the insurer before the contract is concluded, every material circumstance which is known to the assured, and the assured is deemed to know every circumstance which, in the ordinary course of business, ought to be known by him. If the assured fails to make such disclosure, the insurer may avoid the contract. Every circumstance is material which would influence the judgment of a prudent insurer in fixing the premium, or determining whether he will take the risk... Whether any particular circumstance, which is not disclosed, be material or not is, in each case, a question of fact...”

The Dutch law gives in section 251 quite a similar article but does not use the expression “may avoid the contract”, but imperatively states that the contract is void. In general the attitude of the Dutch Courts towards the wording of section 251 will be in accordance with the interpretation of the British Courts.

Recapitulating this provision, we can state, that all circumstances which may effect the determination which leads to the acceptance of the insurance, must be disclosed. This disclosure is expected by the insurer (= underwriter), and at the same time may prevent the insurance being declared invalid.

Juridically there are no objections against the principles involved in the scheme which will follow the introductory chapters. It will be easier now to realize that by putting the actual problems before the reader, the discussions need not be broken time and again by the provisos and documentations of the most elementary knowledge of insurance-law. Certainly, we are quite aware of the fact that many other sections from the several Codes could have been referred to, but we are not discussing the point whether agricultural insurance is right or wrong, or the considerations by which it can be supported. The first few pages merely tend to give the reader an insight

¹⁾ Sir M. D. CHALMERS & DOUGLAS OWEN; page 27, etc.

into the meaning of crop-insurance, which form of insurance hitherto has been unknown in this country.

The latest history of crop-insurance on a large scale has its cradle in the United States of America, publications of which can be found in the Yearbook of Agriculture, 1940. We shall also refer to the publications in Switzerland in 1942, on the matter of compulsory crop-insurance.

To end this introduction it is suggested to discuss the following features:

- I. Articles from the Commercial Code referring to the insurance of agricultural crops and the perils thereof.
- II. Mutual insurance, pro and contra.
- III. Private suggestions on the problem of crop-insurance.
- IV. Crop-insurance in foreign countries and commentary there upon.
- V. Agricultural insurances already known in our country.
- VI. Conclusion.
- VII. Summary in Dutch.

COMMERCIAL CODE, THE TENTH DIVISION OF THE FIRST BOOK,

Section 299, 300 & 301

This chapter will make us familiar with the considerations which led Parliament to issue the three sections of our Commercial Code, dealing with the subject on hand. The idea is, merely to give a general report on these considerations. The subject is not really of great and material importance to us, but for the sake of completeness it is essential to mention its existence. For this chapter we may entirely refer to pages 277—283 in Voorduin's History of the Dutch Codes ¹⁾, and to the Commercial Code itself.

Section 299: "Besides the conditions provided for by section 256 ²⁾, the policy has to express:

- 1st: the situation and the adjacency of the grounds the products of which are insured,
- 2nd: the use of same."

Section 300: "The insurance can be effected for one or more years. In case the expression of a time-limit has been omitted, the insurance is supposed to have been made out for one year."

Section 301: "By adjusting the claim, it is calculated what would have been the value of the crop at the time of harvesting without the arising of the disaster, and the value of this crop after the calamity. The insurance pays the difference as indemnity."

The heading of the Tenth Division of the First Book of the Commercial Code now reads:

"About insurance against the perils of fire, about the perils the agricultural crops on the fields are subjected to, and about life-insurance."

The old wording of the heading of the second chapter of the Tenth Book (see VOORDUIN) was:

"About insurance of the crop against accidental events of the season."

¹⁾ "Geschiedenis en Beginselen der Nederlandsche Wetboeken" by Mr. J. C. VOORDUIN.

²⁾ In section 256 is enumerated what has to be expressed in every insurance policy except for life-insurance.

Now it reads:

"About insurance against perils the products of agriculture in the fields, are subjected to."

This heading is still in force.

The first chapter of this Tenth Book deals with fire-insurance, the second deals with crop-insurance, and the third is devoted to life-insurance. It is this second chapter which now claims our attention.

In order to get the fullest knowledge about the matter, within the space of this study, it will be useful to refer to section 247 Commercial Code, which section has been in a certain way a springboard for the discussions of 1835 (see VOORDUIN). This section 247 reads:

"The insurances may have as subject, among others:
the perils of fire,
the perils, agricultural crops are subjected to on the fields, etc. etc."

One of the notes made about this during the debates in Parliament in 1835, resulted from the question why the insurance should not cover perils like the diseases of cattle. The answer was in the spirit of: "Because this section (247) does not exclude or restrict, but merely mentions some kinds of insurance (there are the words "among others"), without indeed restricting thereby the possibility of insuring between parties, the consequences of cattle-diseases if so desired."

The wording of the Tenth Division of our Commercial Code (the three sections 299—301) simply indicates in more general terms such insurances as may be of daily interest. Moreover, according to information from the Government, there is little reason to mention these cattle-diseases separately, as special funds already exist for this purpose throughout the country.

When on a later date this question was put before Parliament again, the Government's reply was a refusal to cede to these wishes, as only such insurances had been dealt with, as needed special regulation.

Another consideration of Parliament was, that of a special

section dealing with the insurance of live-stock. It was proposed that the suggested section should be mentioned inclusively, indicating the kind, the age, the colour, etc. as well as the assessed value of the animal(-s). However, conform the considerations noted above, the Government was not willing to enter into these suggestions any further and wisely dropped the matter.

So much for the heading of this chapter.

The first section of it refers to section 256 of the Commercial Code (see note page 8). When section 299 adds to those mentioned under 256, two more features of interest, it is merely to make it clear that this insurance policy, issued on behalf of agricultural interests, in no way differs from any other insurance policy as far as the general provisions are concerned. It differs only by the addition of section 299, as a marine policy bears the ship's name, and the voyage contemplated by the assured, besides the particulars as per section 256.

We have seen from the wording that this section wants a description of the exact situation and adjacency of the grounds. This point formed part of the discussions in the old days of 1835. Some members of Parliament discussed the subject, whether or not there should be a description on a basis of cadastral measurement. The Government was of the opinion that cadastral measurement, according to cadastral figures, would be necessary in cases of mortgages, because of the interest third parties might have in the property. Between insurer and assured it appears less necessary. The consideration reads literally: "However, the validity of the contract should not be effected by the omission of such a provision" (see VOORDUIN; page 258).

We will see later how far it will be of interest to the development of our own plans, whether cadastral measures should be taken or not.

Section 300: In the suggestion of the 23rd March, 1835 (before coming into force) the sections reads:

"The insurance may be accepted for the period of one year, provided that the correct time limits are expressed under penalty of voidness."

These last few words were considered too strong and were afterwards altered to the present wording. It is beyond doubt

obvious, that the policy must clearly state the period covered by it.

Section 301: This section deals with the settlement of claims. In particular the editing of the previous wording was criticized. The Government at last, gave the Section its present appearance.

MUTUAL INSURANCE

Where insurance in general originated, is hidden in the grey past. One is rather uncertain whether the parties interested for instance in a sea-bound vessel, co-operated for the planned voyage, in order to secure mutual responsibility for losses, if incurred, and to share the profit in proportion if the vessel reached harbour safely, or whether some contracts of insurance which have been found have the privilege of being the eldest.¹⁾

The latest discovery has been made along the old track known as the Via Appia, near Rome. The 2000 years old tombstone of a man called Antonius, bears inscriptions from which we understand that this old Roman already created a burial-fund out of which the members received an interment according to their social position. The man who is supposed to be the first insurance-agent was living over 2000 years ago in the country between Euphraat and Tigris, and named Antimenēs. He gave insurance against the loss caused by the escape of slaves.²⁾

Anyhow, the first mutual alliance of the old times (something of the kind must have existed) reflects itself in the present forms of mutual insurances. One may even say³⁾ that the insurance on non-mutual terms, is in fact mutual, but usage requires once and for all, that one shall call an insurance "mutual" if one wishes to indicate a certain constellation whereby the profits and the deficits of the business are to the account of the assured, and not to the account of the insurer.

In the introduction we formulated it in this way: the mutual companies are based on the principles of collaboration, or co-operation, of those who bear the risk of insurance.

In this chapter we will try to consider the pros and cons of mutual insurance in general. For full information we refer to Mr. J. J. HAGE, "Onderlinge Verzekering".

Now and again we will refer to the regulations and rules of one or more mutual companies, but for the sake of fair colleague-ship we will refrain from mentioning special names.

¹⁾ DORHOUT MEES; page 5.

²⁾ "De Polis" — 7/5/43.

³⁾ HAGE; page 31.

In a later chapter several forms of agricultural insurances will be dealt with. They all are executed by mutual companies.

Except for the mutual life-insurance companies there are no legal limitations for the appearance of mutual corporations, provided those corporations are of "moral conception", according to section 1690 of our Civil Code. From this particular section sprouts the legality to enter into legal proceedings, if wanted (see section 1691/92 Civil Code). It is to the consideration of the Lord Justice whether the mutual company, according to the memorandum of association, will be a body of good morality or not.

DORHOUT MEES ¹⁾ writes on this matter: "the great liberty these mutual companies have on these terms, often gave rise to the uncertainty about their real existence." There is in the jurisprudence on this subject quite a substantial lot to be read, which however can be neglected here.

The participants in the mutual company may be "member", or only assured, as the latter need not necessarily appear on the list of members. ²⁾ This is what DORHOUT MEES writes. We doubt however, whether this is quite true. There certainly are examples from which one may be induced to draw this conclusion, but after further information, we have the impression, that there is some misunderstanding on this point. If the mutual company, for instance, takes the attitude of the joint-stock company (writing industrial fire-risks on bourse-policy), the premium-account made in such a way, is kept in separate books. However, it is impossible to trace the exceptions, due to many hundreds of mutual companies operating in this country. It is of no real importance either, but should be mentioned as we have objection to the external habitus of the mutual corporation in general.

On the other hand, the mutual participants must belong to the group of the assured. ³⁾

These participants (let us call them for convenience sake-members), have in their membership a somewhat dualistic

¹⁾ DORHOUT MEES; page 79, etc.

²⁾ Idem.

³⁾ HAGE; pag. 140.

character. Are they not really the assured on the one hand and on the other, partners in the co-operation which gives insurance-cover on behalf of exactly the same people? There is some contradiction in affairs in this matter. ¹⁾

The members may pay fixed rates, fixed rates plus additional levies, etc. In the first instance, the position of the member is almost equal to that of the assured under a policy of a joint-stock company, if not there is in the regulations of this mutual company the provision, that if the premium-income and the reserves of the company are insufficient to meet the claims of the assured, there will be an indemnity proportionate to the assets of the company. ²⁾ Anyhow, it appears that there are many differences and possibilities, the companies can arrange every detail according to their own views on the subject, views which often are bound to local circumstances or the like. We shall see a little more about these when we study some forms of mutual insurance in the agricultural life of this country.

Generally speaking, it may be stated, that of the mutual character of these companies, quite a great deal has been lost. Managers and Directors for instance, may have in the regulations of the company special conditions which give them the authority to change these regulations one sidedly. This is not with regard to integral parts of the rules, but nevertheless one can unanimously agree, that such possibilities in fact weaken the principles of mutual enterprise of any mutual society. ³⁾

Then, there may be the condition that the company is not to be prosecuted by the members, or, that only the Directors' final decision is binding. ⁴⁾ Although the verdict on dispute by the Directors, according to the regulations as agreed upon, is not necessarily subordinated to the sections of the Civil Code, such verdicts are legal, as the agreements between the assured and the company are subjected to section 1374 of the Civil Code. This section contains the provision, that the verdict resulting from, and based upon the conditions of the afore-

¹⁾ HAGE does not agree; see page 20.

²⁾ HAGE; page 22.

³⁾ From the rules of a big mutual company we read: "All disputes with members regarding insurances have to be composed (settled) by the Directors."

⁴⁾ DORHOUT MEES; page 80, etc.

mentioned agreement must be in good faith. In other words, the handling of the dispute as well as the sentence by the Directors, must comply with the principles of reasonableness, objectivity and fairness. That also the reciprocity of these principles should be taken into account (company towards assured, assured towards company) will be beyond doubt.

Once the verdict has been pronounced and in case the assured may have objections against it in respect of any uncertainty with regard to the good faith as mentioned above, the latter can lodge legal proceedings against the company via the usual way of justice. However, it will not be easy for the prejudiced assured to start an action in this way (with considerable chances of success), as this assured now has to prove that the sentence as pronounced by the Directors has been based on ill-faith from their side.

But, it has never been our intention to lose ourselves in the labyrinth of jurisprudence. There is one article left in our Commercial Code, which claims our attention. It is section 286, which reads:

"The mutual insurance- or guarantee companies are ruled by their respective regulations and conditions, and by absence of which, are governed according to the principles of law ..." ¹⁾

With reference to this section NOLST TRENIITE writes that the simpleness of the juridical regulation, has often given rise to questions. Even in the discussions of March, 1835, it was stated that the member of the mutual company is insurer and assured at the same time. HAGE writes that the discussions plainly showed that the mutual companies of 1835 were considered not to belong to the sphere of interest of commerce in general, and consequently should be governed according to common law and according to the nature of mutual agreements in general.

The character of the mutual company is dualistic as said before. The juridical basis of the mutual enterprise is in the first instance this particular section 286; the regulations of the company however, not only can be, but frequently are,

¹⁾ DORHOUT MEES; page 82, etc. VOORDUIN; IX, page 250, etc. HAGE; page 46, etc. NOLST TRENIITE; page 15, etc.

rather vague, due to less clear appreciation by the composers of the memorandum. This in turn leaves the position of the assured rather uncertain. NOLST TRENITE¹⁾ characterizes this as follows: "because the real nature of a thing may be screened by imagination, it may never be suppressed or raised." In other words, one has duly to make in these regulations a distinct difference between the relations concerning the membership on the one hand and the relations between the members and the company on juridical insurance-purpose on the other.

In connection with this last observation it may be emphasized that the company is not allowed to insert in her regulations any condition clashing with the principles of insurance law. In the latter case the members could claim nullification of their legal connection with regard to the company.

It is further emphasized that in affairs not provided for by the memorandum, the supplementary principles of law in the Commercial Code or elsewhere must prevail.

As a rule mutual companies are not very popular in the spheres of the great insurance markets. Obviously there are exceptions and some mutual companies have indeed reached the height of large and important corporations.

We may refer to VAN OOSTVEEN for a moment.²⁾ He only gives little attention to the affair, but his views are of sufficient importance to be quoted. He writes:

"... In the main, they (the mutual companies) have local significance only and there are scores of villages which have their own "mutual". Most of these are but Liliputians, which by lack of proper re-insurance facilities are doomed to failure, if a fire should set ablaze and lay in ashes many properties. The risk of conflagration however is not a daily occurrence and so, many mutuals have been able to form financial reserves of some considerable strength. But, if there is no re-insurance, a smaller reserve can be reduced very soon. A strong preserving element in the life of these local mutuals is the fact that the members know each other well, and that for instance, at the time the hay is stored, there is a regular control in respect of hay-heating."

So far VAN OOSTVEEN.

The last sentence of the quotation is of course, to the credit of the mutual companies. These views of VAN OOSTVEEN, give in a nutshell the accurate position.

¹⁾ NOLST TRENITE (Fire Insurance); page 15.

²⁾ VAN OOSTVEEN; page 115.

There is more however, and we have the following objection against the principles of mutual insurance.

In nearly every memorandum of the bigger mutual companies, one can find the authority given to the management to re-insure their business. Now generally speaking, these mutuals do not re-insure their risks with other mutuals, so the re-insurance will be covered with a joint-stock company. We noted the difference between the joint-stock and the mutual corporation in an earlier chapter. By re-insuring in this way, the mutual company transfers part of her own risks to the joint-stock company. The first one, loses part of her actual character and gives herself the nature of a speculative corporation, as her re-insurer is speculative in fact; "speculative", as in the eyes of the advocates of the mutual enterprise, the joint-stock institutions are based on speculative motives. So, our objection against the principle of mutual insurance is not directed against the fact of the re-insurance, but against the fact that the mutual, agreeing on terms for re-insurance with the joint-stock company, has lost her nature of a mutual enterprise, thus becoming a "pseudo-mutual". As far as the mutual enterprise is a guarantee for the quality of her business, this fundamental consideration, in fact has lost its significance (see our page 84).

We can read in the regulations of one of the big mutuals operating in the North of this country, that the company may re-insure in "total or in part" the risks insured with her. There are no restrictions on this matter and it is entirely up to the Managers to act according to their own views.

But as the more technical side of the business of this re-insurance is usually unknown to the members, her outward appearance remains, except for the staff of the company, an insurance enterprise on mutual terms.

If one adds to this, the partial uncertainty of the juridical position of the members, as described before (page 19), as well as the other objections made in respect of the entire constitution, we should prefer the safe harbour of insuring with a big joint-stock company, with its well-spread cover and backing of large properties, its perfect re-insurance and its excellent technical staff, the whole affair being subjected to the most stringent conditions of the Commercial- and the Civil Codes,

and the competing conditions of its policy, as we said, we should prefer all this to the rather uncertain roadstead of the mutual corporation. It is true that many farmers do not agree on the lines sketched above. The point is, that experience gathered by the joint-stock companies on agricultural risks as far as fire-insurance is concerned, has been most appalling. Rates became too high for the farmers to pay and consequently they looked for mutual cover.

By incorporating mutual companies, the members are mutually interested in the enterprise, which by then becomes their own business. These mutuals work cheaper than the joint-stock companies, have a very simple organisation, the main work very often being done by one or more of the members, involving little costs for salaries, no advertisement etc. and there is no competition.

For that reason the premium can be on a lower level. On the other hand, if calamities occur, the liability of the mutual company is restricted by the condition in their policies "to reimburse as much as possible". In other words, if the funds are exhausted, the mutual company cannot be kept responsible for any further indemnification. The joint-stock companies are liable up to the total value insured.

Recapitulating, there are undoubtedly points to the credit of the mutual company in general, as long as business is profitable, no heavy claims arise and no faults in the management are made. The mutuals can work cheaper but their policy does not give such a widespread cover as the policy of the joint-stock company, nor of the official bourse-policy, with all the additional conditions, due to competition. Besides, there is the everlasting uncertainty of calamities and the most unwelcome consequence of heavy tolls in the form of levies.

One last quotation from a mutual-fire-policy reads: "all losses due to fire and/or lightning and the consequences thereof, costs of re-insurances, pensions, and all other costs are levied by the Management on the total sum insured."

There are mutuals in the great cities, but as a rule their character is better appreciated in the country. There we can find them by hundreds and of every thinkable type, handling every thinkable class of business, as hail, fire, live-stock, etc. etc.

PRIVATE SUGGESTIONS ON CROP-INSURANCE

In order to give the reader a clear impression of this chapter, it will be necessary to explain the fact why it is inserted in this study in the way it is done here. It is because the first ideas on this subject came in this particular form, independent from, and before the knowledge of activities in this new field of insurance, already introduced elsewhere in the world. The reader thus has to consider *this chapter* as *giving merely some general lines*, reflected in the provisional sketch as it now lies before us.

It was rather a difficult task to give the matter a more distinguished character, as the subject was totally unknown in this country, and the basic principles may be considered as somewhat liberal. But, when this idea came, the question arose "why should not insurance of field-crops be possible?"

Before observing the several points of interest, a short introduction may precede. There is the question "why, agricultural insurance?" Is not agriculture in general most closely connected with Nature, and dare we interfere with what Nature is burdening our shoulders? This orthodox doctrine can be rejected, as agriculture now has become an industry, collaborating with Nature. No doubt about that. But modern science has given us the possibility to steer this industry according to our own plans, except in certain cases, where Nature indeed will remain master of the field. But becoming an industry, as the natural result of economic circumstances, now ruling national and international welfare, it also became vulnerable. We have long since passed the times of predatory cultivation and entered a new period. It is the period of intensification of the agricultural production, an intensification which has to be brought up to the highest possible standard of production; human needs have increased every day, every minute, and we have to safeguard our international position as an agricultural country (including horticultural produces). We may refer here to some figures of statistical importance.¹⁾

But, we are not going to enter into the complications of

¹⁾ MINDERHOUD: "De Nederlandsche Landbouw"; page 6, 36, 108, 110/111.

modern economics, we are not discussing the advantages of a spreading of crops over one farm in order to obtain the best economic results (we shall mention this point later on). We simply want to state that every form of industry, developing on scientific lines is becoming more and more susceptible and vulnerable, to influences which may effect this sensitive instrument of modern welfare.

Agricultural insurance is a matter of organisation and introduction.

The wish to get a good organisation of farmers is not so urgent in this country, as a wellworking organisation is available. It is however in the U. S. A. As we will learn later, it was there, that crop-insurance came into being. We may already refer to an article published by the Department of Agriculture in that country, in 1913.¹⁾

The speaker at the conference referred to in the publication, Mr. POWELL, stated: "that if an organization is to have the virility to live in the face of the competition to which it will be subjected, it must be born of economic necessity, and that necessity must exist before it is formed; in other words, unless the investment of the producers is endangered by social and economic conditions and they are obliged to unite to protect their interests, the average farmers' organization can not exist because the members will not stay united in the face of the competition it will encounter and the innumerable methods used by unfriendly interests to separate them from the association..."

"His experience indicates that a community which grows general farm crops and is fairly prosperous, cannot be organized and the organization successfully held together; and that no community except one, founded on a special industry, such as fruit, dairy produce, cotton, eggs, poultry, etc. can be organized for business purposes."

We should like to invite Mr. POWELL to see for himself what is going on in our country, as here we have quite a number of farms with general, all-round exploitation. In spite of that, the farmers' organizations here are flourishing greatly. The reason why this quotation of Mr. POWELL is made, is because

¹⁾ Organization and Conduct of a Market Service; page 9.

of the evident evolution since 1913. The great war may ultimately have had its influence, certainly there has grown a different morality amongst the farmers; if we look through the Yearbook of Agriculture of the U. S. A., we definitely get that impression. However, Mr. POWELL is still correct, as the biggest enterprise was launched in the U.S.A. The crop-insurance of all wheat-producers, which underlines the idea of becoming a success, only if it has been born of economic necessity. We will see about this later.

It was in 1922, that the United States Department of Agriculture issued the Bulletin No. 1043, in which Bulletin we can find an article of V. N. VALGREN on the principles of crop-insurance. We may quote some lines from this publication.

"The need of the farmer is a form of insurance that (1) will safeguard him as far as practicable against all unavoidable losses which would seriously cripple him, and (2) can be obtained at a cost or premium which he can afford to pay." . . .

"It may be laid down as another principle that the ideal crop-insurance will, to the extent indicated, provide protection against all unavoidable hazards to which the crop is subject." . . .

"... there is little more logic in carrying crop-insurance against certain specified hazards, with the insured carrying the total risk against other hazards than there would be in taking out a life-insurance policy against certain specified diseases. The thing that the buyer of life-insurance seeks is the positive assurance that in the case of his premature death the economic loss sustained by his dependents will to a greater or lesser extent be made good by the insurance. Similarly, the thing needed by the producer of crops is the assurance that if these crops fail to produce a reasonable harvest, no matter what the cause of such failure may be, assuming that he himself has fully performed his part, he will be indemnified for the loss that he has sustained."

"It is hardly necessary to point out that in no case should the insurance safeguard a man against his own negligence or carelessness. Any insurance which does this tends to create a form of moral hazard that no company can afford to assume and also to diminish the efficiency and productivity of agriculture as a source of national wealth."

We will meet the same principles also in our scheme, as we shall meet much of it again in the U.S.A. scheme for crop-insurance on wheat.

Agricultural insurance is not merely intended to give cover against damages of different nature, but also as one of the most

essential conditions for securing the agricultural industry. The "Volkswirt"¹⁾ writes in 1937, that the battle to secure our food-position is of material interest, even if the crop is damaged or partly destroyed, in order to continue the production uninterrupted. This same periodical writes in 1941, that agriculture is one of the corner stones to carry on the war.

In case a disaster takes place which would result in the farmer's inability to meet his financial obligations, it would in principle attack the whole structure of agriculture. That is why in so many forms, one can encounter insurances covering hail, fire, cattle, etc.

Agricultural insurance is closely connected with the problems of mortgages, loans, etc.

In this respect we may refer to the so-called "Volkscrediet-wezen" in the Dutch East Indies, which is a Governmental Service for small credits given to the native population. This service was put into action in 1904. The epidemic evil of making debts by the native inhabitants had drawn the attention of the Government to this problem of agricultural economy of our natives there.

This undermining evil, which resulted for them in paying excessive rents, was taken away by introducing the system by which this population could borrow small, but educative credits.²⁾ Thus the native farmer could be raised from his state of pauperism and decay in which he had been living. Now the so-called "desa-loemboeng" (= small credit company) gives as village granary, small credits "in kind". In his little book, BESSELING³⁾ writes that the aim of the desa-loemboeng is to lend on reasonable conditions to the members of the village concerned, if asked for, rice, for the cultivation of their small farms, for small personal needs in times of food shortage, or for any other utility purpose. These desa-loemboengs are very useful, in particular in those parts of the archipelago where rice is the main crop. The desa-loemboengs lend out rice against a rent which is paid back "in kind".

Next to the loemboengs, there are the village-banks. These banks give credits in money. We will meet the same principle

¹⁾ Der Deutsche Volkswirt; Oktober 1937 & November 1941.

²⁾ GONGGRIJP; page 199 etc.

³⁾ BESSELING; page 12 etc.

of loemboengs and banks again in a different constitution, in the U. S. A.

DE KAT ANGELINO¹⁾ writes on the matter of the "Volks-credietwezen" that this Governmental Service is one of the great opponents of the evil of usury. But still greater importance is derived from the fact, that it "radiates" educational powers, and stimulates personal industry. In Holland, farmers' credit banks on co-operative terms, are established throughout the country.

Only in very few countries we find compulsory insurance. One may come across it in Tunis (for hail-insurance) while also in a few other countries Governmental Services have taken the matter in hand.²⁾

Unexpected calamities may occur, in particular in those parts of the world, where for instance hail is hardly known (no hail-insurance will be popular there). If in such a case a catastrophical hailstorm takes place, an alarming position arises. (One has been able to state that there is no fixed ratio between the frequency of hailstorms and the extent of their damage.)³⁾

"Dann erhebt sich ein grosses Geschrei nach Staatshilfe" is what the "Volkswirt" writes.⁴⁾ This is a form of carelessness which must not be continued. In case for some reason or other the Government is not willing, or not able to give help, these careless farmers will be ruined.

One has to realize that there are possibilities to offset these disasters financially. Whether these possibilities to insure oneself should be limited to the dangers of hail only, will be a matter of consideration later-on. There are more perils menacing agricultural crops, perils like inundations, diseases, etc. The consideration dealt with in the "Rapport sur les Systèmes de Crédit Agricole et d'Assurance Agricole", issued by the League of Nations, is that only the Government can dispose of funds in order to cover these risks, or to meet with the calamities if occurring. These funds have to be independently

¹⁾ DE KAT ANGELINO; page 345, 2nd volume.

²⁾ Rapport — Société des Nations, 1938.

³⁾ Die Bank, "Aleatorische Hagelversicherung", March, 1940.

⁴⁾ Der Deutsche Volkswirt — "gesicherte Ernährung — versicherte Landwirtschaft".

managed, except for State-control, with a juridical capacity and a rich financial autonomy.

Agricultural products are usually negotiated on free markets, which markets have prices of a fluctuating character. In other words, the price position is rather uncertain. In general, if there is a coinciding between the worlds' population and the worlds' increase of agricultural produce, there need not be much fear for a disorganization of the commercial principle of demand and supply.

However, if agriculture is developing in a yet greater speed, or if there are other features interfering with the balance of demand and supply, such will manifest itself within a short time. Besides, the rapid improvement of agricultural technique (see our quotation on page 33) there may be other items to disturb the normal trend of things. There are disturbances in the consumption due to industrial depression, disturbances in money and credit-system, protective measures in import countries, etc.

Herefrom results the relative conception of "over-production" which causes a confusion between production and production-costs. Now manufacturing industries can under certain circumstances switch over their production-apparatus; agricultural industry cannot do so. Agriculture is not an elastic apparatus like so many other industries. The Government, if a disturbance of balance occurs as shown above, has to interfere, either by giving protection or by taking measures which may lead further developments into quieter channels.¹⁾

"Also another consideration has played its part in the protection of agriculture; in particular in European countries, the preservation of this agricultural population is highly appreciated as a conserving element in the State; that is why every possible thing is done to maintain this section of the population in order to secure them a remunerative existence" (see VERRIJN STUART, page 130).

A considerable amount of information by the Government, via institutions of education in agricultural science will have extreme advantage. Agricultural education is far more advantageous to meet the possibilities of menacing perils, advantageous too, to give an economic insight into the agricultural

¹⁾ VERRIJN STUART; page 126, etc.

world. Why is it, that in Denmark and in Holland, there was no support by the Government whatsoever in matters of private agricultural societies of any kind? ¹⁾ It is because the education in these two countries is on a very high level. Quite possibly, this is why these two countries are considered the highest in individual standard, in intensification of their production-methods. ²⁾ Agriculture is indeed one of the strongest pillars of national welfare.

Now we may bring forward our own suggestions on the problem of crop-insurance.

Our first consideration given to this matter was to put forward the question, *whether or not insurance law would permit the insurer to undertake steps in this direction*. But it appeared that *no legal limitations were made* (see our chapter 2); on the contrary, the Commercial Code provides a couple of sections in relation to the insurance of crops, and these sections give us all the freedom we want. Thus there are no clashes to be expected with the juridical science, nor with the agricultural customs of the country.

The second consideration which came across our mind, was, to give insurance cover not only for one special crop, but in principle *every growth should be insurable, provided that a table of appraised premium-rates has been put up, as long as rating of the farms cannot be done individually* (due to lack of historic figures, see our page 116).

On the other hand it seems a wise policy, when starting a new business like crop-insurance in this country, to collect experience on a few growths first, in order to give further extension to the insurable objects after satisfying results of these first experiments (see also Dr. ROMMEL, page 32: "Aufbau und Durchführung" ...).

The third consideration was directed towards the warranty, that if the farmer wants to insure one or more special crops, he must *insure the total acreage covered by that/those crop(-s)*, this in order to eliminate the chance of insuring only the worst parts of his acreage.

There are of course, more basic elements in this crop-insurance suggestion, but we will meet those in due course. In

¹⁾ Rapport — Société des Nations, 1938.

²⁾ See our page 92.

future chapters we will be able to test the interpretation of this provisional design, as we will be able to compare the range of our plans with those of well and thoroughly constituted ones, brought forward in other countries.

FRANKLY speaking, the farmers as well as the technicians, who received a copy of this scheme confidentially, in order to give their opinion in return, were not very excited about it. There even seemed to be a general feeling against it, a certain amount of reluctance. These people were of the opinion that the insurance based on the lines as projected, would cost far too much to be attractive for the farmer-assured and to be profitable for the insurer. Moreover they feared it would be extremely complicated as far as settling of claims is concerned. There was no special need for the insurance, we were told. Besides that, there was the unanimous opinion, that the whole enterprise would fail due to lack of good faith in the morality of their colleague-farmers. The scheme is too much based on the principles of high moral standard. They told us, that good faith is alright, as long as personal observation is possible, but with the eventual introduction of this class of insurance, and the constitution of a staff of employees, the latter have to be educated in the terms of crop-insurance knowledge, and after all not to perform duties as a police-corps. Nevertheless, the basic lines in the whole affair should be and must be, of and on the highest morality on the side of the assured.

After long discussions with the above mentioned farmers, full understanding was obtained, clear interpretation of the points were given, and contrary to their first attitude, there remained only extreme interest in the further developments of the project.

Here is the design in its embryonic state.

We have endeavoured to compose the terms for an insurance policy which should cover the perils arising from weather-conditions, such as storm, heavy rainfall, exceptional drought, inundations, and crop diseases (provided that these diseases are not due to the negligence of the assured). In general, against all such mishaps, caused by atmospheric and other external

circumstances, which effect the output of the crops insured.

The character of these mishaps and perils must be uncertain. This provision is un-conditional (see section 246, Commercial Code). Therefore, most decidedly all those consequences which are due to the fault, the negligence or the incapability of the assured and or his employees, must be excluded from the policy. Neither are any acts of violence, covered under the projected conditions. The policy under consideration, will not give cover against all such events which are insurable elsewhere, like hail, fire, storm or acts of war or warlike operations. It will be clear why this provision is in principle and voluntarily introduced in the conception. The sphere of interest the farmers have in the (often mutual-) insurance corporations, in particular those which are of local importance, is frequently felt of such concern, that inclusion of these items in the scheme under our attention, will most probably clash with the personal interests of the eventual policy-holders under our own plans. So the consideration which leads to the exclusion of these risks, is entirely based on psychological grounds. However, if it will appear, either not to be of real importance, or impossible on technical insurance-motives (see our conclusive chapter on this matter), or, if the candidate-assured wants to have his policy all-risks, including the mentioned exclusions, there will be found a way to act according to those wishes.

In order to tackle this matter of insurance, we first have to deal with the facts which effect the crop itself. In particular the influences under normal social circumstances have to be considered, circumstances which do not hamper the farmer in any way in fulfilling his profession according to his best knowledge, to his highest standard of duty, to plough and to fertilize, to sow and to choose the best moment to yield his crops. Also the treatment of the crop should be done normally, such as disinfecting, fighting diseases, etc.

Therefore this scheme has to be put into action in peacetime, in other words, during a period free from impeding and interfering influences.

As we said above, the insurance is to cover the perils arising from the weather. Almost all other factors are connected with

the weather directly or indirectly. There are evidently factors which have nothing to do with the weather itself and nevertheless play their part in the course of produce. There is for instance the choice of seed-corn. Also the way of yielding may play an important part. One may be used to harvesting in stacks or in ricks. In case it proves to give greater differences — fluctuations in the diagrams of production — this way of harvesting should be considered beforehand by the insurer when accepting the risk. Therefore again, it should be disclosed by the candidate-assured at the time of acceptance.

We already attended to the matter of disclosure (see section 251, Commercial Code) but it may be useful to diverge for one short moment from the scheme itself, to throw full light again on this particular item of insurance law. We will see later, that only full disclosure of facts is to the advantage of the assured. Full disclosure, like the way of harvesting, as well as other items which often are of a special and most personal view in the way of management of the farm, is to be made. Full disclosure of facts only, can give full rights under any insurance policy. It is no use hiding certain features, as one day these will come to the knowledge of the insurer and legal action is pretty sure to follow. The information wanted by the insurer can be given on a list where-upon a number of questions occur and which have to be answered by the assured. This list is called an *application-form*.

All the perils arising from the weather should be considered to be beyond human influence and so certainly are those like inundations resulting from the breach of dikes (Wilhelminapolder, 1943), epidemic appearance of diseases, etc.

The insurance-cover will be terminate directly after the moment of threshing, but we will refer to this later. Directly after threshing an insurance can be taken out in order to safeguard the crop against fire.

It may be useful to illustrate our proposals by means of some examples. For the sake of simplicity it is assumed that the insurance effects only one special growth. For instance, the policy is taken out on the wheatcrop of a farm, with a cultivated area of 10 ha. The parcels thus cultivated are registered.

During the last 5 years the average yield per ha has been 40 hl. As the average is computed per unit of 1 ha, all the qualities of the soil and of the capability of the farmer, are represented in this figure. It is a fact, that these averages per farm will prove to be more regular for big farms than for smaller ones. We doubt whether this would make such a great difference in total.

If we compare theoretically, a small farm of 2 ha with a bigger one of an acreage of 10 ha wheat, it will be possible that the average of the small farm is 35 hl/ha (over the 2 ha's cultivated) and the average of the big farm is 40 hl/ha. The first figure may be obtained by yielding 50 hl from one ha and 20 hl from the other. The large farm makes an average of 40 hl/ha because this farm has more ha's with an average of 50 hl and less with 20 hl. Again, this example is to be considered as strictly theoretical as the crops of each ha is harvested in such a way that the farmer can never indicate the separate yields of separate parcels of one ha, if the same kind of seed-corn is used.

Therefore our general attitude is that we have to take these figures in total, on the whole, provided that the insurance is in operation over the greater part of the country. It is typical of every form of insurance, that it should be executed over many hundreds of thousands of policies, otherwise the class of risks remains too individual and the risks cannot be considered properly.

Now in our first example, the average of 40 hl/ha shows to be the average of 5 years, preceding the year of calculation. The next year will show a difference with this average, which average then has to be taken into account with its preceding 4 years, to obtain the new figure for the coming year, and so on. Here is the example:

Production	1931.....	400 hl,	giving an average of 40 hl/ha			
„	1932.....	380 hl,	„	„	„	38 hl/ha
„	1933.....	420 hl,	„	„	„	42 hl/ha
„	1934.....	220 hl,	„	„	„	22 hl/ha
„	1935.....	380 hl,	„	„	„	38 hl/ha
		<hr/>				
		total of 5 years..... 180 hl/ha				

or an average of 36 hl/ha.

It can be expected that the yield for 1936 will be somewhere round this figure of 36 hl/ha, and therefore can be insured for 1936 crop on this average. In case it appears that the harvest 1936 is a very favourable one, for instance with a production-average of 50 hl/ha, the calculation for 1937 will read as follows:

1932	38 hl/ha
1933	42 hl/ha
1934	22 hl/ha
1935	38 hl/ha
1936	50 hl/ha
total	190 hl/ha

which gives an average per year of 38 hl.

This figure will become the new standard for the season 1937.

This way of computation includes also a remuneration of the personal activity of the farmer, who evidently has been able to increase his yield during 1936 in such a way, that the production considerably favoured by Nature, has gone up from an average of 38 in 1935, to 50 hl/ha in 1936. Farmer and Nature work in close collaboration, though Nature plays the greater part. Due to the capability of the farmer he has been able to meet the threats of Nature in such a way that greater output results. The same spirit we find in the First Annual Report of the Manager of the Federal Crop Insurance Corporation, 1939, who writes: "...Producers may increase yields and reduce hazards by use of new varieties of wheat that are resistant to certain natural hazards, by the use of improved types of machinery, which increase the possibilities of timeliness in performing certain farming operations, and the use of new methods of cultivation, and other factors which have an effect on yields and, consequently, on crop-insurance."

From the Yearbook of Agriculture, 1940, we quote (page 756) "...on the other hand, factors affecting production are largely physical, (and) in considerable measures can be predicted."

VERRIJN STUART ("de Conjunctuur, etc.", page 55) indicates that the main cause for the depression 1929/36 sprouts from "the fast improvements of agricultural technique, in particular

in the overseas countries, by which the profit of agriculture in the older countries has deteriorated."

Originally it was anticipated that the *cadastrally registered parcels* should be conditioned, in order to get the most exact calculation of the averages. Afterwards the necessity of *cadastral registration was considered not to be of real importance*, provided that the same unit is taken by consecutive computations (see our page 13).

The wish to insure has to be expressed before *the 1st of May* of the year concerned. This date has to be fixed in order to avoid the possibility of taking away the factor "uncertainty" in relation to the crops. We simply refer again to section 246 of the Commercial Code, which stipulates that the cause of the eventual damage must be unforeseen. (We will meet the same principle on page 84 in the policy of a hail-insurance company, limiting the dates between which hail-damage is covered, as outside those dates, hailfall is obvious and thus not "unforeseen".)

A further item of the scheme is the introduction of a *franchise*, a free from x percent principle. The deductible percentage is uninsurable. The condition must be introduced, as the percentage, which will be expressed in the policy, forms part of the usual differences in the crop-outputs and so are not "unforeseen" (see also page 84). It depends on the premium-rate which franchise will be used, 5, 10 or more percent.

Illustrating this we suggest for instance a percentage (= franchise) of 25 % to be figured from the computed average. From our standard example the calculated average was 40 hl/ha and the franchise amounts to 10 hl/ha. If in a certain year the average yield has been 22 hl/ha, the claim under the policy has to be drawn up as follows (assuming the average is still 40 hl/ha):

average	40 hl/ha
less 25 %	10 hl/ha (franchise)
	<hr/>
	30 hl/ha is insured.

The crop gave a production of 22 hl/ha, so there is a claim of 8 hl/ha, which is the claim averaged over 10 ha.

However, another provision has to be made in this respect. The afore mentioned claim of 8 hl/ha is *to be indemnified for 50 % only*. In other words, deficits on outputs larger than the franchise, are insurable for 50 %. This consideration results in our example in an indemnity for the farmer of 4 hl/ha, which means that the crop with the average of 22 hl/ha is made good with 4 hl/ha.

The reason why this 50 % settlement is introduced, is defended by the consideration that the farmer should never lose full interest, nor part of it, neither in his business nor in his crop. His full attention should be maintained and the knowledge that he is insured, must on no account breed indifference.

The reason why the franchise was introduced is that each crop every year gives a different outcome. These differences are mainly not beyond 10 to 20 % from the average; here 25 % is taken as franchise, entirely due to the fact that this figure gives an easy calculation. Theoretically any franchise can be taken, as any premium-rate is computable.

Both considerations, the franchise as well as the 50 % claim-settlement, prove most definitely that this suggestion on crop-insurance should be the creation of an insurance possibility; *not* against usual disappointments in crop results, but most *exclusively, against unusual disasters only*.

The next question on which we can focus our attention, is the way to ascertain the total output. *As long as there remains an interference by the Government, the output can be determined according to the threshing-certificates.*

The total number of hls threshed, multiplied by the specific weight of the wheat gives the full produce of the crop. The system of these threshing-certificates is indeed very useful in this respect.

However, we have to mention a number of remarks with regard to this system of threshing-certificates.

- I. The question was put before us, whether the insurance should also effect crops which are not threshed. The answer is, that no doubt it has principally to be possible to insure every crop on the terms as sketched above. In other words, also those growths which are not threshed, like potatoes and sugar-beets. However, we consider the working out of those problems, as business affairs and consequently beyond the scope of this study.
- II. The matter of the threshing-certificates is indeed one of the most delicate points in the whole conception. We will refer to it again in our conclusive chapter. Now already it may be pointed out, that *the assured has to prove his loss*. As long as Governmental control exists, so long the use of and the proof by these certificates is guaranteed.
- III. There is a number of big farmers who have their own threshing machines; to control figures from them might cause a particular point of observation to the eventual insurer (see the reference made under (II) in respect of the Governmental control, and the necessity to prove the loss by the assured).

(It may be emphasized again that we want in this study to refrain from all all those items which really belong to the actual introduction of the scheme into operation. This restriction on our suggestions may be felt as unsatisfactory, but on the other hand it will be appreciated that as there is no experience with this form of insurance in our country, several details have to be considered as soon as experience is gathered. The aim here, is merely to give a theoretical suggestion, the practical execution of which has to be backed up by reality.)

If at any time the interferences by the Government should come to an end, it will be necessary for the assured to prove their outputs, for instance, either by maintaining the system of the threshing certificates, or by means of any other well working system. As the ascertainment of the crop-production figures is principally based upon the fact that the farmer is keen to insure on terms of the highest probable average obtainable for his particular farm, he will have no interest at all in swindling the certificates. He may for once manipulate the figures and so make a profit by stating losses on his crops. He will forget that by doing so these figures will remain in the

calculations for another series of years, when determining the averages from year to year (see example above and in our conclusive chapter).

In this respect it may be brought to the attention, that *every farm will be considered separately* if the wish to insure on these terms is expressed. Only during the first few years of insurance, it may be possible that, due to lack of the farm's own historic-figures, an estimation of the output has to be made. After some years of operation, these actual figures will be available as a result of this operation. It will then be demonstrated, that the more accurate the assured discloses his figures, the more profit he may have of his insurance.

In case of catastrophic events occurring in some parts of the country, for instance the collapse of dikes in the province of Zeeland, it will be apparent that the insurer reduces (or even eliminates) the hampering conditions of such a disaster, so preventing the average figures for the farms concerned from being affected in the coming years by this total-loss figure. The figure of the previous year can be taken into account for one other year, in order to compute a justified average.

It will be obvious, that quite a number of other questions may arise in the course of the insurance, but we cannot concern ourselves too much about them at present, as only practical operation of the enterprise will teach us the ins and outs of the business itself. Just as a matter of observation it may be put forward here, that in case of a compulsory crop-insurance, for instance as a result of a conducted economy, experience gained from the sources of this compulsory insurance, can give a fair indication of the standard of agricultural production in the sundry geological and geographic-economical spheres of a country. These figures will show whether in one particular district, with one particular geological-chemical constitution, and with an average production-output of certain amount, one particular farm or group of farms, are managed well or not, whether agricultural officials have to give more and special attention to such a locality, or whether there are circumstances, unknown up to now, which hamper the development of agricultural production. In short, it may be, that experience gained by the action of crop-insurance, will

provide us with an indirect control of the welfare of some special district.

With regard to the determination of the total output of production, the following should be noted. If the farmers' turn for threshing (frequently threshing is executed by means of co-operative societies) is late in the year, it will be useful and correct to take into account a certain degree of his output (according to the certificates) for shrinking, home-consumption and general loss. On the other hand, this should not be exaggerated. Referring to our standard example with its calculated average of 40 hl/ha, making 400 hl in total, there is in the first instance the franchise of 25 % (or any other percentage) while the difference between the calculated and the actual output is insurable for 50 %. This means that there has to be a difference of more than 100 hl to exceed the franchise, which difference has to be caused by weather conditions, or something similar, before one can claim a loss under his insurance policy. Accurate measuring however, should be kept in mind, particularly in cases where the output-figure is just somewhere round about the franchise.

The dates on which farmers can thresh their outputs can differ considerably. Some will be ready in November/December, others will thresh their crops in January/February, or even later still.

But, all this need not really worry us very much. It may even be preferable for the insurer not to receive all his loss-advises and other business troubles, like application forms, etc. on the same date. The farmer has to take into account the deductions as referred to for home-consumption, etc. but for the rest we may leave the technical consideration to the actual insurer.

Up to now only references have been made with regard to the total output of the production in weight. We have however, also to refer to an even more weighty matter, that of the *quality*.

Indeed, this point is of material importance for the farmer

and for everyone who is interested in grain-trade in general. We will refer to it again later-on (see our page 111). Now already it may be stated, that we prefer to keep the importance of this question as minute as possible, as in fact it will appear not to be of real influence in the scheme under our consideration.

No insurance is thinkable with its rights to claim under the policy, without its counterpart, *the insurance premium*. It is suggested, that one of the new principles under this scheme will be the introduction of a *premium-payment after the risk is ended*. *The rate is individually calculated per farm beforehand, and according to the historical figures of the farm concerned*. If no historical figures are available, an estimation has to be made (see our conclusive chapter).

The premium-rate shall have to be based on the loss-experience per ha and per growth. This is nothing new, as the premium-rate is the reflection of the underwriters' mind, the reflection of what he thinks or knows is adequate to make covering a risk payable. This is entirely a matter of experience. The rate depends on the merits of the risk itself. In many cases tariffs could be fixed, due to the fact that the matter insured was exposed to certain known perils (compare accident-insurance, life-, industrial fire-risks, motor-car, etc.). It may be that in the long run also for crop-insurance tariffs will be computed, but in principle we prefer the individual farm-rating. This rate is of course dependent on the franchise and on the claim-settlement agreement of 50 or more percent (less than 100 %).

Insurance is an affair of many hundreds of risks of the same class. So, if crop-insurance is launched, it should be done on a large scale. It is a business handling large figures for insured values, and usually small figures as far as premiums are concerned.

We need not detail the meaning of the word "value", but we have to give it a formulation as in a few instances we shall consider how to state the insurable value, as it has to be fitted into our scheme. *This value is the price the goods have at a certain moment*, a valuation attached to the goods by the

market, the price the farmer can obtain for them (in a usual and legal way) either on the market or by delivering his product to the Government. In the latter case the farmer is bound to accept the price the State offers him. In normal times the value will be created by the price for which the farmer is willing to sell and the buyer is ready to pay.

Assuming the idea that fixing a price for his crop beforehand is too speculative a business for the assured, it may also be for the insurer a critical matter. Not every farmer will judge this point in the same and correct way. Not every underwriter can. In other words, it may prove a miscalculation for both parties, which miscalculation has to be avoided, and it can be avoided!

What we have to do, is simply stipulate a date at which the value of the goods will form the basis whereupon the sum to be insured will be computed.

Therefore it is suggested to make this date coincide with the one, on which the farmer is due to finish threshing his crop.

After this threshing, the said farmer can establish most precisely whether his total output really is in accordance with the computed average (as represented in the policy) or, whether his total output shows a difference from that expressed average. Is that difference in percentage below the franchise (the percentage of which also is expressed in the policy) there will consequently prove to be a claim under the insurance cover. *The farmer* however, should not only have the right to claim his loss, but *must have the opportunity to claim against a price which is in force and indeed obtainable at that very moment.* That moment is the date of threshing.

Does this threshing coincide with the delivery of the goods to a buyer or to the Government, the farmer will be very much up to date with the price he gets for his products, or alternatively, the indemnity he receives from the insurer. So in fact, *the farmer has to prove to the insurer his total output in weight and the price he has obtained for it.* (See on page 39, our formulation of the word "value".)

If support is wanted, the Government can interfere with the price-policies as a result of which prices may be fixed at an earlier date, although it remains doubtful whether these prices will be known already when taking out the insurance-policy.

However, the date of threshing is quite a reality and so is the price of the goods on that same day. That is why we suggest to agree upon taking the same price to settle a claim, which price is identical with the one upon which the insurable value of the policy is based. One may not favour the idea of fixing the insured value on such a late date, and consequently collect the premium only after the expiration of the actual insured period. Quite a number of questions remain open and this may be one of many. A better solution of the problem may emerge as soon as *the principle of the coinciding dates* have not proved to work according to our expectations.

We have said already, that this suggestion is more or less liberal, unusual, unknown. The principles involved, though new and revolutionary for insurance, should not be thrown away before being experienced in reality. We have had in our "Crisisvarkenswet" a similar idea, by the provision that the sold pigs were paid after killing and after the quality could be ascertained.

A few examples may illustrate what is put forward above.

1. The calculated production is 40 hl/ha. The real production appears to be in excess of this average. There is no claim under the policy and the average for the coming year will be increased.
2. The computed average is 40 hl/ha, which makes 400 hl for 10 ha. The correct production is far below that average, for instance is 20 hl/ha, making in total 200 hl. The claim is ascertained as follows:
we have to reduce the total of 400 hl by the franchise (25 %) which is 100 hl. However, the production was 200 hl only, so 100 hl less than the total output minus the franchise. The policy covers half of this difference between the computed and actual output, i. c. half of these 100 hl = 50 hl. The farmer consequently gets a compensation of 50 hl. So instead of losing 50 % of his total income without insurance he now receives a total of the countervalue of 250 hl, which is a 25 % increase (= saving) of his income in money. Say for instance, with the franchise of 25 % and a claim-settlement percentage of 50 %, the premium-rate will be somewhere round $\frac{1}{2}$ or $\frac{1}{4}$ %, it might be of material interest to the agricultural world if such an insurance were possible.

In case of a general crop-failure in the great corn-producing countries of the world, the prices may have gone up considerably. The assured has now under this scheme the full profit of the increased prices. He would have missed such if he had

insured against a fixed price when effecting his policy in the spring time of that same year.

If we make the same calculation as above, with insertion of a price of $f\ 10.$ — for wheat/hl at the moment of threshing, we get the following construction.

That same farmer has a total computed production of 400 hl à $f\ 10.$ —, making a value of $f\ 4000.$ — The loss for the insurer according to our last example, was 50 hl à $f\ 10.$ — = $f\ 500.$ —.

Assuming that the rate quoted for this particular risk, with this franchise of 25 % and a claim-settlement percentage of 50 %, is something round about $\frac{1}{4}$ %, this will mean, that the premium paid by the assured amounts in total to $f\ 10.$ — on his full wheatcrop. His income would have been only $f\ 2000.$ — if not insured, but now it will be increased to $f\ 2490.$ — nett if the insurance premium is deducted from the indemnification by the insurer.

One may object to this example, referring to the question of the price and the quality. But when we then give attention to this point, we simply have to agree that the price, which is a reflection of the quality is $f\ 10.$ — for first quality wheat. The insured value in our example is $f\ 4000.$ — If the quality is not first class, but first and second class on the whole, and the price averaged at $f\ 9.$ —/hl, the insurable value consequently amounts up to $f\ 3600.$ — This will result in less premium, but also smaller indemnification. Therefore, it again appears to us, that the principle of the coinciding dates, as brought forward above, will undoubtedly play an important part, in order to simplify the scheme in its operation.

In case of a total-loss (which we consider can only happen in very rare cases, like breach of dikes) there will be no production, no comparable products. Special measures have to be taken in such events, to arrange this affair and to attend to its possibilities. The policy can contain a special section devoted to this particular detail.

There are still some more points of interest to be mentioned. *The computation of the yield-averages is bound to be made per farm.* Every assured therefore has his own averages, based on his own historic yield-figures. Every assured can be sure of the fullest attention given to his particular farm; every farm

is treated according to its own merits. So the fear some farmers expressed, that they should not like to be subjected to the averages of their neighbour-farmer, is entirely groundless.

In this respect we have made some calculations, figures of which will be represented in special tables (see our conclusive chapter). These figures illustrate most clearly the differences between two and more objects superficially entirely equal to each other. But in a country like ours, quite a number of soil-structures will prove to be factors of integral significance. That implies the necessity to compute the averages for each farm separately, as far as possible.

The scheme is projected against the background of insurance possibilities with fixed rates (no levies). These rates should be the outcome of much calculation and experience, and the finished scheme should as far as possible exclude any kind of enterprise on mutual lines. The farmer who wants to insure his crop has the right to know what this policy will cost him, as those expenses form part of his professional household-costs.¹⁾ There should be no levies, nor entrance fees. There should only be security, support in his general enterprise to make the best of his job, the best of his crops and the best prices obtainable. If we base our conception on these lines, and if we leave untouched the personal interest every working man must have in his daily work, we may consider ourselves on the right track to create more and better security to the agricultural industry as a whole.

Before ending this chapter about our personal views and our first impressions on crop-insurance, we have to pay attention to one other matter.

There are some articles from the Dutch jurisdiction, which are related to this affair. The sections in question are those we can find in *the Decision 1941 in the Farming Rent System* ("Pachtbesluit").

Previously the question was handled in the Agricultural Lease Act, but after bringing into force the Decision 1941,

¹⁾ SEDLMAYR; page 107; "Die Versicherungsprämien sind grundsätzlich als "Wirtschaftsausgaben" in die Jahresschlussrechnung einzubeziehen, vorausgesetzt, dass es sich um die Versicherung von im Betriebe tätige Kapitalen und Personen handelt."

this Lease Act was put out of action. If referred to, we shall just call the two, the Decision 1941 and the Act 1937. In fact the Decision 1941 and the Act 1937, so far as the few sections we have to deal with, do not very much diverge. These sections of interest deal with *the right of continuation and the right of remission* (= acquittal).

The old position was, that in the majority of cases the tenant, by way of an article in his contract with the landlord, waived the right of diminishing the tenure in case of unavoidable and besides, unsuspected disasters¹⁾ (formerly section 1628/29, Civil Code). Nor was it usual in those days to embody sections in those contracts dealing with insurances, although this was different for the separate provinces. The full weight of the professional risk in fact burdens the shoulders of the farmers²⁾ (farmers, here = tenants).

This circumstance made insurance of material importance to them. However, in those days one knew only about fire-, life-, stock- and hail-insurance (1912). In the farming world no other insurance was really introduced.

We may refer to a speech delivered by Dr. DRESSELHUYNS in 1895,²⁾ propagating a general crop-insurance. His suggestion has been entirely forgotten. Dr. DRESSELHUYNS wished to insure against the consequences of hail, nightfrosts, inundation, diseases in the fruit, etc. It appears that Dr. DRESSELHUYNS made the suggestion that all these consequences, and the degree of damage arising therefrom, should be estimated separately.

This was considered impossible by those who had to give advice on the matter (which conclusion is correct as far as we can judge). As said above, the plan of Dr. DRESSELHUYNS has never been heard of again, and we may leave it at that.

In 1907 Dr. BRUINSMA made a new attempt to draw the attention of the parties interested in agriculture (see our chapter on "agricultural insurance already known in our country").

Anyhow, we can see herefrom, that, although without direct results, the general attention has been focussed once or twice on this point of crop-insurance. It is of importance for us now to see that beyond the sphere of insurance law, an arrange-

¹⁾ Page 86; "Bijlagen behorende bij de rapporten en voorstellen etc. . . ."

²⁾ Page 139/140; "Rapporten en Voorstellen . . ."

ment has been introduced in our codification, which indirectly effects the principles involved in our plans.

After a long period of rather incompleteness of our legislation on the matter of land-lease (governed by our Civil Code, sections 1624/36) the sections of the Civil Code dealing with it, were replaced by the Act 1937, by which in 74 sections the relations between the landlord and his tenant have been dealt with. We saw already that this Act 1937, lately (1941) has been replaced by the Decision on the Farming Rent System.

However, to get a better insight into the considerations which preceded the bringing into force of the Act 1937, we may refer to a publication by Dr. PH. DE VRIES.¹⁾

Contrary to the "free-play of influences" DE VRIES writes, that opposing this ideology of the 19th century, the wish emerges to get to a well intended regulation of the mutual relations within the social world. Sprouting from this wish, we note the new legislation aiming at the social interests.

As civil-law used to be supplementary, there gradually appears a large number of sections, indicated as "compulsive law". These sections deal with affairs, from which the contracting parties cannot, and may not diverge.

As primarily the supplementary civil-law gave way to special conditions between contracting parties, such is still the position, except for all those cases in which compulsive law borders the liberties which previously were available to parties concerned. That is why in the new legislation on this land-lease affair, a number of articles are included, articles of a compulsive nature, from which no deviation is tolerated.

It is by no means our intention to give full consideration of this Decision 1941, nor of the Act 1937. We only want to refer to those sections which in their character are related to the spirit of some conditions from our own conception of crop-insurance. If we quote DE VRIES²⁾ we read:

"it is not section 625 of our Civil Code stating: "Property is the right to exploit the free enjoyment of an affair and to decide over it in the most absolute way"", which is the fundamental principle on which the new legislation is based, but

¹⁾ "De pachtwet"; Mr. PH. DE VRIES, Inleiding, page 5.

²⁾ DE VRIES; page 8.

rather, that modern consideration, that property, and in particular land-property, is a social function which should be executed in the general interest."

So far the quotation of DE VRIES. (We also, should like to see crop-insurance taking a place as a function in the general interest.) This appreciation of land-property, however, does not permit an unlimited liberty in the contracts, and consequently a number of sections of the new legislation had to lead the matter into fixed channels.

"The law does not interfere with the right of land-property. The owner remains entirely free to contract or not; but, if he makes a contract, he has to yield to the conditions of the law." ¹⁾

Now the lease-system in this country is quite general and counts for about 50 % of the cultivated area. ²⁾ There are several objections raised against the principles of this system, in particular of a social nature. As a rule the relation between farmers and landlords is good, but there are exceptions. Generally speaking there is very little difference to be observed between the lease-hold farm and the farm managed by the owner, in respect of exploitation, intensification, the state of the farm-organisation, the extent of crop-production, etc. Nevertheless there were objections against the rent-money, and the missing of the right of continuation by which the renewal of the lease-hold deed was warranted.

The new legislation is supposed to give a solution to this problem. In the Decision 1941, this affair is handled in the 3rd chapter, "about the purport of the contract". In the Act 1937, we could read, that the contract was effected for an unlimited period (section 4) except in special cases, provided for by section 5.

In the new Decision 1941, section 10 (1), we read: "the contract is valid for a limited period", the other subdivisions giving the several possibilities regarding this limitation of time-period.

Quite appreciable was the protest launched by MINDERHOUD ¹⁾ against the wording of the old section (Act. 1937). Then, the

¹⁾ DE VRIES; page 9.

²⁾ MINDERHOUD; Economisch-Statistische Berichten 3 & 10-7-35.

latter was of opinion that with a rent-system on these conditions, this everlasting leasehold, little remained of the rights of the lessor-owner on his properties. The Decision 1941, by which the ultimate period is based on 12 years (the contract can be renewed afterwards) gives sufficient security to the tenant to continue his farming, even after the period mentioned.

We have had to deal with this point in order to understand more clearly the next step, the right of remission. The rent-money was considerably increased in earlier days, due to mutual competition (see MINDERHOUD).¹⁾

"the main grievance is, that the farm-rents by the mutual competition of the people interested, are increased up to such a level, . . . that the tenant cannot have a reasonable existence."

The fact that a farmer's son reaches the age when he should have a farm of his own, as his home-farm cannot provide a sufficient living for himself and his eventual family, makes it necessary for him to find such a leasehold. Not having much choice, he will in such a case be ready to pay any rent asked, which apparantly will result in a considerable increase of the rents in general. Demand and supply are not equally balanced. In such periods of economic disorganisation the continuation-right of the farmers is a weapon in their hand, a matter however we need not go into any further.

There is on the other hand, the possibility that these rent-prices are coming up to a level which can be considered as a top-limit, the ultimate potentiality. Only a very slight disturbance of the farming plans may cause disasters on a smaller scale. No solution for that problem has been found.

The right of remission gives a solution in cases of adverse circumstances. This right of remission has in view the diminishing of the obligation of the farmer under such circumstances, which might otherwise cause him considerable loss.

In the Act 1937 the matter was regulated by section 23 and 24, in the Decision 1941, we can find it handled in the sections 37, 38 and 39.

¹⁾ MINDERHOUD; Economisch-Statistische Berichten 3 & 10-7-35.

Section 37 of the Decision 1941, deals with the rights of remission and its coming into being, due to recent circumstances. Section 38 and 39, translation of which will be given in short, deal respectively with reconsideration of the contract's rent and, the increase of the rent due to certain circumstances. Both these sections are directed towards future eventualities.

Both rights, the one of continuation and remission, are compulsive articles of law.

The sections are made compulsive by the words ending both chapters of the Decision 1941: "Every condition which deviates from the provisions of this chapter, to the prejudice of the tenant, is void."

In order to be clear, we give here the main parts from the section 37 of the Decision 1941:

"The landlord has to agree on a reduction of the tenure, if during one year or one season of the leasehold-contract, due to extraordinary circumstances, the yield of the farm has been far below the expectations at the beginning of the leasehold-deed.

A decrease of the farm-produce, as far as the price is concerned, as well as circumstances due to the fault of the farmer, etc. are not to be qualified as extraordinary circumstances.

The compensation the farmer gets under his loss-of-profit insurance-policy, will be considered as income of the farming."

Section 38 of the Decision 1941 indicates that the "leasehold-prestation" (from the section quoted) should be reconsidered between parties concerned at the beginning of each 3-years' lease-period.

From section 32, Act 1937, we read that the tenant must agree on an amendment in his lease-contract, i. e. an increase of the rent-money, if such a revision is wanted according to changed circumstances and is asked for due to good faith. Literally the sections' wording reads for its first paragraph:

"The tenant must agree on an amendment, in particular an increase of the rent-money for the future, if such an amendment, as a consequence of changed circumstances is required, bound to good faith."

Section 39 of the Decision 1941, deals with the same subject and is almost indetical with this section 32 of the Act 1937.

However, the first section mentioned, gives an explanation to which this revision "according to circumstances" is related. The translation is:

"The tenant is bound to accept an increase in the rent-money, if during a year or a season of the leasehold-contract, the costs laid upon the landlord by public orders, for extraordinary activities which avail the tenant, have been substantially higher than at the beginning of the leasehold-deed could be expected."

From these sections we can learn, that if parties concerned have agreed upon the fact that the farmer should take out a hail-insurance, but that if he forgot to do so, or dropped this obligation purposely, he would never have the right to claim under the right of remission, if for instance 50 % of his crop has been lost due to heavy hail-fall. Such would be the position if an insurance had been agreed upon. We are rather in doubt what value to attach to the words of section 37 (2), Decision 1941, "circumstances due to the fault of the farmer are not to be qualified as extraordinary circumstances". We are of opinion that they might also refer to any circumstance or any possibility to prevent losses, so that by being un-insured, a waiving of the farmers' rights under the wording of this section may result. Naturally, if no protection could have been found, either by insuring, or if any other perils have cut down the financial outcome of the farms' exploitation, the wording of the section need not cause doubt and the newly gained right of the farmer will give him the support wanted in days of adverse conditions.

To end this chapter, we should like to bring the following to the attention. MINDERHOUD (Economisch-Statistische Berichten 3 and 10-7-35) writes (about the farming system as suggested now):

"... shall show the tendency to a further increase of the rents as the risks of the farmer will be reduced; his position gets more attractive; the number of persons interested will increase, while the supply of leaseholds beyond doubt will decrease, as many who now lease out, soon will prefer to sell or to bring in own exploitation again."

We have little to add to this. If the actual operation of crop-insurance has been launched, the landlords may oblige their tenants to take out such an insurance cover, as incident-

ally they already now oblige their tenants to take out a hail-insurance, a fire-insurance, etc.

The right of remission is to the benefit of the tenant, the introduction of crop-insurance is to the benefit of the farmer-owners, and, if expressed in the leasehold-contract, also to the benefit of the landlords, who quite appreciate that their tenants by accepting the conditions of crop-insurance, will have less reason to claim under their rights given to them by section 37, Decision 1941.

So it might be that the increase due to the introduction of the right of remission in its present stage, will be flattened out by the introduction of crop-insurance on the terms as projected in general lines in this chapter.

Perhaps we may recall the words of Mr. POWELL (see our page 24) that an organisation has the virility to live, if born of economic necessity. In this respect, we have not the pretension to judge whether the existing agricultural conditions here in our country apply to the provisions of an economic necessity, as far as crop-insurance is concerned. But, from the point of view of the eventual crop-insurer, circumstances certainly do look promising.

CROP-INSURANCE IN THE UNITED STATES OF AMERICA

When dealing with crop-insurance in the United States of America we may refer in particular, to two publications:

- a. "First Annual Report of the Manager of the Federal Crop Insurance Corporation, 1939";
- b. "Crop-Insurance", by ROW AND SMITH, from the Yearbook of Agriculture, 1940.

While reviewing these two publications here, we will follow them as closely as possible and no special reference will be made, except to those quotations, which are not from either of these two issues.

The Yearbook of Agriculture is named "Farmers in a changing World". Indeed, farmers are living in a changing world, particularly all those, who will remember the old days of their fathers and grandfathers. Just as a matter of interest we may refer to the publication¹⁾ from the Yearbook, from which we learn that "according to recent estimates there are something like 1.600.000 tractors in use in the United States. This is almost double the number reported by the census in 1930, and indicates an increase of 746.000 tractors during a 9-year period." There certainly is a great difference between the past and the present in this agricultural "industry". The word "industry" illustrates already, that agriculture today is not merely a production by the grace of God, but became, undoubtedly still by the grace of God, in particular an industry, where human interference with the conditions of the soil, is radical and extensive; where artificial fertilizers and hydraulics, the fight against plant-diseases and modern harvesting, are essential steps in a new direction. Agriculture is becoming scientific just as any other industry now-a-days is a matter of scientific staff-equipment. Agriculture is in a continuous competition, not only with the agricultural potentials of other countries, but even with the non-agricultural

¹⁾ "Influence of Technical Progress on Agricultural Production", page 513.

industries of the home-country, socially and economically. We know the difficulties, even in this small country of ours, the everlasting struggle between the country and the centres of industry, i.e. the towns. This problem of economy and social geography may, however, be left out in this study.

But from all this, which can only be indicated superficially, resulted the wish to give more and better support to agriculture as a whole. One of the considerations leads in the direction of the insurance coverage, in order to play its part in this endeavour of general interest, in order to supply an everlasting backbone in the struggle for agricultural security.

The experience gained in the U.S.A. is expressed in the Yearbook of Agriculture on page 756:

"Crop insurance on wheat ¹⁾ is proving itself an aid, not only in regions where failures are frequent but also in those where production is relatively certain and failures are not ordinarily contemplated nor provided for. By this method the burden of loss is spread over a large group of wheat farmers throughout the country. Each farmer, by payment of his premium, purchases security against crop failure. The total premiums collected constitutes a reserve with which to pay the losses. Those who harvest a good crop thus share the loss of those not so fortunate."

The U.S. Federal Crop Insurance Corporation was established under the Federal Crop Insurance Act, Ao. 1938. The Corporation is part of the Agricultural Department. The aim of the Act is to give insurance cover in a comprehensive way, on wheat, for all states and counties, where wheat is generally grown. *The idea is to give cover against all production risks.* The principles of the insurance are similar to those, underlying any insurance. "In effect, the large number of farmers who pay premiums in any one year shoulder the loss of those to whom indemnities must be paid; or from another angle, an individual farmer distributes the burdens of his own losses over a number of years. The method, then, is that of self-help on a co-operative basis. The farmers pay premiums to meet the losses; the Federal Government pays administrative expenses as a contribution toward stabilizing agriculture."

¹⁾ From the Report of the Manager of the Federal Crop Insurance Corporation, 1943, we learn that also cotton came within the scope of the insurance program from 1942 onwards.

\$ 10,000,000.— is subscribed to the stock-capital and was deposited with the Treasurer of the U.S. to the credit of the Federal Crop Insurance Corporation, which fund is being used as a revolving working fund in carrying out the operations of the Federal Crop Insurance Corporation.¹⁾

The insured farmer gets a protection under his insurance policy against unavoidable losses, based on a loss of 25- respectively 50 % of his average yield, whichever he chooses. This principle of a claims settlement-percentage (= retention) we have met in our own program also. Now the average yield is to be calculated beforehand for each farm separately. Any part of the loss which is due to poor farming is not indemnified (see Summary of the Yearbook; page 65). We quite appreciate this, but nevertheless fear many a dispute between the man adjusting the claim and the assured. Moreover we are rather uncertain about the exact meaning of this provision, as the average yield, already computed beforehand, implicates this "poor farming" of the preceding years. However, the principle of calculation the average is already familiar to us.

"Some companies have attempted to write "all-risks" insurances on crops but the projects have not been successful. Such contracts were written against loss of income from the crop for any cause, and price declines were, on the whole, more important causes of loss than crop failures. The insurance

¹⁾ From a short review on the activities of Federal crop insurance in 1945, we note:

"After a lapse of about a year and a half Federal crop insurance is again available to producers of certain crops. Suspended in the summer of 1943 as a result of an appropriation limited to liquidation purposes, crop insurance was made available again by the Congress through an amendment to the Federal Crop Insurance Act approved December 23, 1944. Certain changes were made in the program by this legislation and other changes were made administratively; . . ."

Amongst those changes there are:

Next to wheat and cotton the legislation makes insurance available also to producers of flax.

"The new legislation also provides for trial insurances on other commodities for the purpose of determining the most practical plan, terms and conditions of insurance on such commodities."

"Although not limited thereto, the following commodities are mentioned in the Act: corn, dry beans, oats, barley, rye, tobacco, rice, peanuts, soy-beans, sugar beets, sugarcane, timber and forests, potatoes and other vegetables, citrus and other fruits, and tame hay."

etc. etc.

of price would be desirable if it were feasible, but prices are to a considerable extent determined by human actions and are not predictable" (see our page 8, quotation of DORHOUT MEES).

Dr. ROMMEL gives in his publication "Aufbau und Durchführung der Ernteversicherung in den Vereinigten Staaten von Amerika" a short review of several forms of crop-insurances as they have been launched in the U. S. A. by private Companies. It appears that none of these efforts to introduce this new form of crop-insurance has been successful. In three of the five cases mentioned by Dr. ROMMEL price-fluctuations were included in the coverance. In all three cases the companies failed to perform their activities any longer than during their first year of existence. The other two mentioned cases, failed due to extremely heavy losses in the first year after launching their schemes, on claims for drought (1917) and the other failure was simply due to lack of interest (1930). We guess that the experience with the other four companies did not attribute much to the possibilities of the last case mentioned.

In this quotation of Dr. ROMMEL, as well as in the quotation of "Crop Insurance" we at once recognise our own views on the affair. The losses from other than human action, are of physical nature, and the human power handling market-prices, cannot interfere with the power of Nature, which gives us in succession all we want; rain, sunshine, snow and wind, etc.

The Federal Government has now made it possible to insure crops, in particular wheat, against the loss in production. This insurance has to break the shock if crop-failure should occur, in order to reduce the consequences of increasing debts, decreasing the living-standard and in general to prevent deterioration of the morality in the farming world.

*Premiums and indemnities are determined in bushels of wheat and may be paid either by warehouse receipts (for wheat) or by the cash-equivalent at the current market price.*¹⁾ By doing so, one gets a substantial wheat reserve, from which can be paid the indemnities. So the wheat-insurance

¹⁾ "The use of the bushel and not the dollar as the unit for collecting premiums and paying indemnities avoids insuring price. This eliminates what otherwise would be one of the most troublesome and dangerous factors in the operation of the crop insurance plan." (General Conclusions, 1942.)

program, should develop "as an integral part of the "ever-normal-granary" plan for wheatgrowers." This ever-normal-granary plan is outlined in the Agricultural Adjustment Act of 1938. "This program includes acreage allotments or conditional grants and benefit payments, commodity loans, and marketing quotas for use in years when supplies are excessively high. Taken together, these devices are designed to stabilize acreage, production, and marketings in such a fashion as to increase farm incomes while at the same time insuring adequate supplies for both the domestic and the foreign market."¹⁾

The system provides *individual premium-rates for each farm*, while *each farmer has to insure his whole crop*, not part of it, subjected to the greatest risk. This provision is in accordance with our program. *The insurance has to be taken out before seeding* and not afterwards, when the farmer may realize that loss is imminent. There we find the same principle as we follow, except for the date on which the eventual application for insurance is to be made. It will be remembered that our basic scheme provides an ultimo date for application on the 1st of May. But in fact, this is not very interesting. We took the date of the 1st of May, as we did not care to cover frost-damage, but if in practice it proves to be wiser to include this cause, we are willing to leave this possibility open.

This individual farm-rating is based on averages of yields during the past years. If each farm were insured on the same terms of production per acre, the low-producing farms would be over-insured and the high-producing farms would seldom collect any indemnities. Therefore it is of material importance, that applying to the individual rating, each farm in the long run, covers its own losses and this principle should be, and should remain the ultimate goal of the crop-insurance program in general. That, however, this principle is not to be executed to its full extent, will be seen when considering the several costs burdening the premium "in kind" while collecting and storing. We are fully prepared to underline the fact that the individual rating is of great importance, as otherwise the capable farmer has to make good, for the farmer who is not so lucky as to be qualified as a "capable" man.

¹⁾ Yearbook: "Some Essentials of a good Agricultural Policy", page 1171.

In order to get a clear view on the matter of the individual rating we may quote literally the wording from the article of "Crop-Insurance" by ROWE & SMITH.

"The average yield is determined, if possible, from reliable and applicable data regarding yields for each year of a base period. Such averages are adjusted to a longer, more representative period. In the 1940 crop-insurance program the base period was the 9 years 1930—38, and the date for this period were adjusted to the 13-years-period 1926—38, except that in certain areas where the base period contained an exceptionally large number of drought years, the 20-year experience 1919—38, was reflected in the adjustment factor. If historical yield data were not available or were unreliable or inapplicable for a few years of the base period, the yields for such years were appraised. If reliable and applicable annual-yield data were not available for two-thirds of the years of the base period, the average yield was appraised on the basis of a similar farm.

To determine the premium rate for a farm for which annual-yield data are available, the loss experience or loss history is determined by an analysis of the amount of indemnity that would have been required had the farm been insured in past years." (This principle has been applied in our design as well.) "This is illustrated in table 1. The average yield for the base period is determined, and the amount of loss that would have been paid had the crop been insured for 75 percent (or 50 percent), of such yield, is determined for each year. This gives an annual loss cost. The losses are then averaged for all years of the base period, which gives an average loss experience for the base period. This loss experience for the base period is adjusted to the longer period used in establishing yields. After such adjusted loss experience is determined for the farm, the premium rate is obtained by averaging this loss experience with the loss experience for the whole county, which has been determined by actuarial studies with the use of sample farms. For those farms for which annual-yield data are not available, the premium rate is appraised on the basis of a similar farm for which data are available. A minimum premium rate of 0.5 bushel for 75-percent insurance and 0.3 bushel for 50-percent insurance applies if the computed premium is less than such amounts."

The way the individual farm-rating is projected here, gives indeed a fair calculation. We need, however, not comment on this matter here, as it is of technical importance to the eventual insurer only. The same can be said of the premiums mentioned. No farmer in this country will have interest in an insurance with a retention of 50 %.

For the sake of completeness we represent here the table 1 referred to in the quotation:

COMPUTATION OF INSURANCE COVERAGE AND PREMIUM
RATE PER ACRE FOR AN INDIVIDUAL FARM
FOR 75-PERCENT INSURANCE

CROP YEAR	Yield per seeded acre	75-percent of average yield	Annual loss cost per acre
	Bushels	Bushels	Bushels
1930	14.5	9	0
1931	16.0	9	0
1932	8.2	9	0.8
1933	14.0	9	0
1934	17.2	9	0
1935	2.5	9	6.5
1936	12.8	9	0
1937	15.9	9	0
1938	7.0	9	2
Total	108.1		9.3
Average for period (total divided by 9) ..	12.0		1.0
Adjustment	+ 0.3		- 0.1
Adjusted average	12.3		0.9
Adjusted average loss cost for county			1.3 ¹⁾
TOTAL			2.2
Premium per acre for farm (total divided by 2)			1.1
Insurance coverage (75-percent of adjusted average field)	9.2		

As we have already seen, not always a calculation of the premium is to be made. Only rather few farms have historic figures. Therefore a group of so-called "key-farms" were chosen. These key-farms have these figures available. If no yield-record was available those key-farms formed the basis for appraising the premium-rates of the former. But this is all very technical, and as said before, we may leave this to the judgment of the competent insurer.

If we give another glance at the First Annual Report on this insurance program, we meet the general statement made by this Report, a statement which makes it clear that the outstanding consideration of this whole enterprise, this all-risks

¹⁾ This figure is a computed adjustment. No explanation to it has been given and no further details are available.

policy for crop-insurance (not to be confused with the "all-risks" cover given by the Private Companies, see our page 53), has to be regarded as experimental.

Some of the principle points by which the course of this program should be steered are the following:

- I. The organization of the program should be as simple as possible avoiding all the extraneous elements which might cut down the possibility to obtain clear-cut results.
- II. The costs of the operation should be reduced as much as responsibility will allow. One way to accomplish this, is to get more substantial participation.
- III. The more partners in this enterprise, the cheaper it will work. It would also work cheaper if a certain number of growers could be eliminated (that number of farmers is aimed at, with only small interests). The scheme however, being one introduced by the Government, can never be limited to a certain class of wheatgrowers only.
- IV. It will be useful to consider further extension of the program for other crops like cotton, citrus, etc. This also, will result in a reduced cost per policy and per acre.

But the farmer who has no real interest in the entire scheme, due to his independent position, his large acreage and his well chosen combination of different crops (not putting all his eggs in one basket) has to be approached as well, as he has to contribute to the scheme like any other farmer.

But we may refer here to the words of Mr. POWELL, already quoted before, that a condition for successful organization is the circumstance that this organization is "born of economic necessity, and that necessity must exist before it is formed." Now this eventual exclusion of small farmers is in direct contradiction to the wording of the publication previously quoted,¹⁾ where we can also read that Dr. CARVER appeals to the Government, expressing his belief "that the Department should be interested more in the small farmer, who needs help or who needs to be shown how to help himself, than in the well-to-do capitalistic farmer." His conclusion is about co-operation and organization of social life of rural communities. What strikes us, is the fact that the belief in the necessity of

¹⁾ Organization and Conduct of a Market Service, page 23.

help for the smaller farmers, should be torpedoed by some extremists in the program of crop-insurance, the ever-normal-granary, etc.

In general we consider that the introduction of such a program as the insurance of agricultural crops, should not be hindered by extensive formalities to be fulfilled by the farmers. The entire official procedure of the application should be kept to a minimum. The aim of the American scheme is expressed by stating that the program should obtain widespread participation, this being absolutely essential to its success. At the same time, noting all the ins and outs of the farm should be avoided.

Another principle of the scheme is that the insurance program shall have "free play", confined by the provisions of the scheme. Also in America, the Act giving the opportunity to find insurance cover with the Government, does not imply insurance compulsion in any way. No doubt it has to be propagated as much as possible, as "without an adequate spread of the risk, an unusual regional crop-failure might seem to upset the actuarial basis of the program."

The steps involved by the U.S.A. program originally laid down, are:

- a. taking the grower's application. Hereon yields were recorded, either according to historic knowledge or by estimation;
- b. the application has to be approved, the premium computed and the farmer informed about the amount of premium due to the branch-office of the Corporation;
- c. collection of the premium by the county representatives;
- d. issue of the policy by the branch-office;
- e. inspections of the fields insured;
- f. the farmer's notification of damage, if any;
- g. the adjustment and settlement of the losses.

The program was launched throughout the country as a national scheme to give security to the individual farmer, and consequently a certain stability to agriculture as an industry. Financial security to the farmer is essential in order to enable

him to keep on farming if any disaster should occur, as, in case of not being insured, he would find himself unable to carry on, and would be compelled to find other employment. If a crop-failure is imminent and he is not insured, the farmer will try to borrow some money to pay his household expenses, his debts and his workmen employed. But, his chances of getting that money will be extremely small. There are no real guaranties to procure security.

It is this insurance program which will give him the security so badly wanted, or, in the words of "Crop Insurance": "The Federal Crop Insurance Program helps farmers to help themselves." And:

"The function of crop insurance is to supplement rather than to supplant various other means of stabilizing income, such as diversifying the sources of income or protecting the crop from damage. The farmer's income usually plans so that the income arises from various sources. He might plant several crops, some of which can be consumed on the farm, rather than a single crop which he must sell; or he might be able to keep livestock as another source of income. But carried beyond a certain stage, such practises are frequently more expensive than insurance."

Here we meet a particular view on the American monocultures from which the design in Dutch agriculture differs so considerably.

"Farms are often best adapted to the production of a certain crop; a reduction in yield or nett income must be accepted if other crops or livestock products are to be produced. At some point the loss through diversification will probably exceed the cost of insurance."

Anyhow, financial security for the farmer gives him the possibility to continue his profession. The new measures might partly stop the migrations, which migrations, often due to extreme drought-periods, give an uncertain basis for the agricultural industry as a whole (see Yearbook of Agriculture, 1940, "The Rural People", chapter: Rural-urban migration a national problem needing a national policy).

Under the crop-insurance program there will be financial security and stability, the prices of the land and of the properties will be more regulated. *So the national program not only gives a direct profit to the agricultural society, but in general a more steadfast structure in social and economical interests.*

This is a consideration which cannot be encouraged enough in its full strength. The way leading to this goal, should be covered at top speed.

We quite agree, that these considerations do not apply to the sphere of actual problems in this country, at least not to any appreciable extent. Nevertheless it can give greater security to the agricultural life anywhere. We will see more about it in a later chapter. We have already seen, that the problems mentioned above are actual in many European countries.

The American policy terminates after threshing. This same principle is followed in our own suggestion. However, the date of the 30th of September is introduced in the American scheme. Claims must be advised after threshing, but before the 15th of October. This will not be executable in our country as we have seen before. Besides, this termination of dates will lead to an extremely substantial accumulation of work, we dare guess. But we leave that to the attention of the American authorities.

One of the difficulties which had to be overcome, was due to the fact that the official staff, executing the insurance program, was not always properly instructed to give the farmers, when making their applications, full information about the particulars of the rates.

In the new year, 1940, yields and premium-rates were determined for all wheat farms in the country, in advance of the application, solving thus this difficulty. Literally the First Annual Report states:

"This has been largely overcome in the 1940 crop insurance program by the establishment of yields and premium-rates on all farms prior to the time for writing applications."

This proves to be possible under the American scheme as the premium is due either "in kind" or in cash, for which latter purpose the wheat is valued beforehand in order to make the payment in cash-equivalent possible (see our footnote on page 62). This differs from our suggestion, where the price

is unknown until after harvesting. But in principle, also under our design, we can produce premium-rates before-hand, if only the total yield figures of the preceding seasons are at hand. In other words, if in our country a farmer has finished his threshing early in the year, he can send his application form as soon as he has made up his mind in respect of the farming scheme according to which he will work next year.

It seems to be essential under the U. S. A.-scheme, that the farmers can pay their premiums at a time they still have wheat available. As, with regard to this premium, there was sometimes trouble in collecting these. The regulations require payment of premiums at the time the application is taken. But at that time, the farmer was either short of cash, or short of wheat. It is an advantage of our design that at the time the premium is due, the farmer has just harvested, threshed and collected the countervalue of his sold crop, so there can be hardly any reason not to pay the premiums wanted by the insurer. The way this problem has been met in the U. S. A. is described as follows (see Report, page 9):

"The difficulties growers faced in financing premiums were materially relieved by Congress in March, 1939, when the Soil Conservation and Domestic Allotment Act was amended to permit growers to obtain advances for premiums against future payments, and other programs administered by the Department of Agriculture. This action was taken in time to enable a large number of growers in the Spring Wheat Belt to obtain insurance who otherwise could not have done so."

This way of meeting difficulties may be of importance under the American conditions of farming, it may be a relief, as it says, it certainly is not a solution. Again we consider our own scheme preferable.¹⁾

¹⁾ From the Summary of Report of the Wheat Crop Insurance Consulting Committee on the Operations of the Federal Crop Insurance Corporation, Ao. 1942, June, we read on page 19:

"For the first three years of the program the participants were required, at the time the application was executed, to pay the premium in wheat or cash, or by means of an advance from the Secretary against their next current Agricultural Conservation Program payment. For the 1942 crop this plan was superseded by the payment of premium by note, due at the time of harvest. This change has relieved the Corporation of nearly all of the responsibility and expense involved in purchasing and storing wheat to represent premiums and, in addition, has been a real convenience to the farmer."

One of the suggestions made in the U. S. A., referred to the possibility of introducing the system of variable annual premiums. High premiums to be paid in years of substantial crops, smaller premiums in years following poor crops. This point is still in study by the authorities. It looks acceptable at first sight, however, there are several objections which could be made against it. The first one is that the premiums are bound to be paid at the time the application is taken. Well, that is in the early weeks of the new season. We have seen already the pecuniary and wheat difficulties of the farmers which the Government has to overcome. Then there is the ever fluctuating market-price, which may cause inconvenience to the farmer by his having to sell his last bit of wheat, in order to fulfil his duties in respect of the premium, unless he has to pay in kind. But we will see later on, that even that can meet with some unexpected difficulties.

Another suggestion referring to the payment of premium, brings us quite near to our own scheme. The suggestion made, runs like this. The premium should be paid after the crop has been harvested. But, almost simultaneously the objection was raised, that there would be a considerable number of people refusing to pay their premium if no indemnity was to be paid. It is a matter of insight, and probably of education in insurance affairs as well. We do not really fear such a lack of willingness to pay. Under our program also the damage caused by hail, storm, etc. may be covered, provided those risks are not specially excluded from the policy. Besides, the law backs us, as a written contract (= policy) has been agreed upon between both parties, i. e. the assured and the insurer.

Anyhow, this premium-income, if made in kind, will result in the necessity of large warehouses. This implies either the new building of warehouses and elevators, or the requisition of the local ones. This will involve costs. These costs have to be paid by some-one. This "some-one" is the assured. We have excluded this matter from our scheme simply by stating that premiums can only be paid in cash. This "all-wheat" phase in the American program "was designed to eliminate the effect of fluctuations of wheat prices from the basis of the insurance."

With regard to the adjustment of losses we have to give further attention to this essential problem. The author of the Annual Report writes:

"At the time the program was taken to the field there was no definite, clear-cut knowledge of how adjustment of losses were to be made, and this undoubtedly was a deterrent to a great many potential policyholders."

We quite appreciate that; it could have been anticipated beforehand. Uncertainty about what will be the outcome of the only aim an assured has, i. e. to claim his losses and to get full indemnification, must cause doubt to those (not only the potentials but to all sceptics) who have not really such an interest in the program, as to those who, economically speaking are living on the extreme borders of their agricultural existence.

In our scheme we have seen that the adjustment of losses coincide with the calculation of the sum-insured, consequently, with the premium due, and even with the determination of the insurance conditions for the next year, as far as the computing of averages are concerned.

But there is another point of difference from the American program in this respect. We may quote "Crop Insurance":

"The problem of adjusting losses appears to be less difficult than was originally contemplated. This is undoubtedly because the work is done by local people . . . since the county committees are responsible for the success or failure of the program in their counties and are familiar with all the factors involved, it was decided that they should adjust the losses.

We are not so sure, whether there will not be raised some objection in this country against the principle of *adjusting by colleagues*. Quite true, we have the adjustment by local people for losses due to hail-fall, but there is a difference between adjusting losses only caused by external causes and the adjustment of losses, the cause of which lies frequently in the internal management of the farm itself, such as personal incapability, lack of enterprise, some wrong decision with regard to fighting diseases, etc.

Besides, as the scheme we have worked out, does not base its loss-figures, nor the yield-dittos, on taxations but on accurate figures, we do not need the help of agricultural experts in order to settle the claims, nor to calculate the value of the crop.

The principle to base loss-settlements on the accurate figures of the proved output, is followed in the U. S. A. as well.

Anyhow, the American program provides the adjustment by local people, familiar with the farming practices of their own locality. These adjusters are fully acquainted with the operation of the general farm program, and have the respect of the farmers in the communities in which they work. While the adjusters are not permitted to make commitments on the adjustments as to what the final settlement will be, their recommendations are ordinarily followed, after careful examination by the county committees and after review by the State- and branch office.

The adjustment is easily made after threshing. What is needed, is to determine whether and to what extent the total production falls below the insured production. The author of the Annual Report is quite content with the way in which these county committees tackled the job of adjusting losses. In the main, claims could be handled within the shortest space of time, promptly and accurately. The farmers proved to be well pleased. Many of them who were reluctant before 1938, became quite enthusiastic about the crop-insurance program afterwards.

The fact that the experience with the settlement of claims by these local committees has turned out to meet with the approval of the assured, gave a lot of confidence in the whole enterprise of this crop-insurance as a new and even decisive economical security.

Now we have seen that this settling of claims works according to wishes, we will give some further attention to the matter of these indemnities. If the payment of indemnities is to be made, the farmers may claim in wheat or in cash-equivalent (see our page 54). Sometimes however, the Corporation has to diverge from this course provided, the same value of indemnity is given. As most of the warehouses where wheat is stored are not exactly next-door to the farmer who claims his losses "in kind", this wheat has to be conveyed there either by rail, or by truck. The value of this wheat is now increased so to say, by the costs of storage, the freight and the

handling. If the indemnity is required in wheat, this increased valuation of this wheat is to be taken into account, and adjusted by "reducing the number of bushels to which the grower is entitled."

The First Annual Report informs us on this point as follows:

"It was considered necessary for the Corporation to place in its reserve a quantity of wheat equal to the total number of bushels collected as premiums, in order to protect itself against price fluctuations. However, most of the wheat available for purchase by the Corporation was either at terminal, or subterminal markets, and practically all of such wheat included in its value the freight billing behind it, and consequently had more value and cost more per bushel than the same amount of wheat at points where premiums were collected . . .

Most of the reserves are stored in large elevators and have moved to the storage point by railroad. Thus they have acquired a higher value per bushel than wheat at local stations. Consequently, in turning such wheat over to growers, the difference in value must be taken into account and adjusted by reducing the number of bushels to which the grower is entitled . . ."

This payment "in kind" has consequently a disadvantage over the payment in cash. However, we have not been able to trace whether the cash-indemnity is subjected to certain deductions, which we should consider normal if these same deductions are made on the equivalent in wheat. The payment of the premiums in cash or in wheat, implies that the task of the Department of Agriculture is extended by a financial procedure, with relation to the investment of the cash-money, the costs of storage, the handling charges, the freight, etc. Next to that there is the fire-insurance for the wheat stored in the warehouses, the costs of a large staff executing the entire administration and in short, all that upkeep which is necessary for an enterprise of such colossal dimensions as this crop-insurance program with its "all-wheat" principles.

So there are disadvantages of many kinds, and it will certainly not surprise us, that if there were no deductions for indemnities paid in cash-equivalent, no farmer would trouble any longer about being indemnified in wheat. We prefer our own scheme, where it should be understood, that the premium to be paid, includes all costs, and the losses to claim should be indemnified according to the conditions of the policy. However, we hasten to agree, that this American enterprise is magnificent. Experience in the coming years will undoubtedly

meet with the arguments raised here, and certainly will be considered thoroughly if proving to be obstacles in the further execution.

The question is brought to our attention, why this "all wheat" program is made possible. The best reply can be given by quoting the Authors of "Crop Insurance":

"The Federal crop insurance program is based on the principle of insurance in kind; that is, the amount of the premium and the amount of the loss is determined in bushels of wheat."

No further reference nor explanation is given. The Authors write:

"The reserve accumulated in years of good crops will act as a cushion to absorb the shock of fluctuations in losses from year to year, functioning as a kind of ever-normal granary. Its operations will be automatic. It should contribute to stabilizing the supply of wheat on the market, and in so far as it stabilizes supply it should have some tendency toward stabilizing prices."

After all, it proved that during 1939 only one percent (1 %) of the total premium income was paid in wheat, all the rest was transferred to the Corporation in cash-equivalents. 1939 has not been a very successful year for the newly launched scheme. The total premium collected (wheat and cash-equivalent) amounted to something like $6\frac{3}{4}$ (six-three quarter) million bushels. Losses paid amounted for the same period to about 10 (ten) million bushels. Nevertheless, it is expected that now premiums are payable earlier in the season, more farmers will pay these in wheat. So, substantial reserves can be built up, which reserves, as quoted above, have to absorb the shock of losses during other years.

We may leave this American program for a moment, but not before having mentioned yet one other item of particular interest. During the discussion of this scheme we have been able to quote some suggestions in the original design, like variable premiums and the deferred payment of premiums as inserted in our own program. The one item which struck us is the suggestion to base the insurance on soil-moisture conditions.

The proposal is "that, in areas commonly subject to drought, insurance be written on the basis of the amount of soil-moisture

at the time seeding the wheat crop." In other words, if the soil conditions are promising, the insurance can be accepted on terms of a yield, higher than the computed averages of the previous series of years, or, if the soil conditions regarding moisture are poor, the expected yield in the policy expressed, should be taken below this computed average.

In this respect we may quote two sentences:

"Such a plan might be feasible, but it would require that special soil-moisture tests be made on each farm before writing insurance."

It may be to the advantage of the insurer, but certainly not to the assured.

"The insurance program is offered so that farmers will have an income in years when they cannot, through conditions over which they have no control, produce a crop . . . Such a plan, therefore would fail to accomplish one of the principal objectives of the program."¹⁾

This entire matter has been left out of our scheme, as this provides a reward to the farmer after a successful year, by increasing the calculated average (see our chapter: "Private Suggestions etc.").

To finish this review of crop-insurance in the U. S. A., we like to quote in full the summary of the Bulletin 1043 of the U. S. Department of Agriculture, which summary gives so much which has materialised since then.

¹⁾ FEDERAL CROP INSURANCE EXPERIENCE UNITED STATES
SUMMARY BY YEARS AS OF JUNE, 1944

WHEAT		Commodity Basis		
Year	Premiums	Indemnities	Surplus or Deficit	
	Bushels	Bushels	Bushels	
1939	6.670.315	10.163.899	—	3.493.584
1940	13.796.798	22.898.147	—	9.101.349
1941	12.643.051	18.857.243	—	6.214.192
1942	8.769.715	10.574.927	—	1.805.212
1943	8.035.124	13.209.955	—	5.174.831
	49.915.003	75.704.171	—	25.789.168
COTTON in Pounds				
1942	31.435.750	52.536.269	—	21.100.519
1943	30.744.370	56.800.979	—	26.056.609
	62.180.120	109.337.248	—	47.157.128

"The ultimate form of crop insurance contract in all probability still remains to be devised. The writer ventures, however, by way of summary to emphasize the following principles as fundamental to a sound plan for crop insurance:

1. The insurance must cover only such crop damage as will result in serious financial loss to the farmer. This means that only a reasonable amount of insurance an acre must be written. For establishing such reasonable amount the average yield and price for a series of past years is perhaps the best basis. It means furthermore, that the acreage of a given crop, if not the entire farm, must be insured as a unit, and adjustment made on the basis of average yield of such acreage. The total loss of crop on one or a few acres out of a hundred is not a serious loss if the acreage as a whole gives average returns or a substantial part of such average.

2. The insurance must cover any and all hazards which are beyond the farmer's control. Insurance which protects against certain hazards and leaves the insured exposed to total loss from other hazards beyond his control is not real crop insurance.

3. In no case must the insurance protect against loss from carelessness or negligence on the part of the insured. Such protection would involve a moral hazard, the encouragement of which is against the best interest not only of the company, but also of the insured and of public welfare in general.

4. The premium, or cost of insurance, must bear a reasonable relationship to the value of the protection that it purchases. This means that the expense item in the expenditures of the insurance organization must be held to a minor part of the premiums collected; that profits, if the organization operates for profit, must be moderate; and that the bulk of the premiums must be available for the payment of current losses and in favourable years for additions to a reserve for the payment of future losses.

5. The method of adjusting loss must be such that the insured will receive indemnity for crop damage in the amount, or on the basis, that he is led to expect from the figures indicating the amounts of insurance an acre. The company should not profit by a calamity to the farmer in the form of reduced prices for his product.

6. An early adjustment should be provided for in case of total failure of an insured crop, or such an approximation to failure that it would not pay to mature and harvest the crop. The part of the income or yield guaranteed by the contract, which becomes due under such circumstances, should be plainly stated and should not exceed the value of the labour and other costs, including rental, that are actually lost to the insured in connection with the crop.

7. All adjustments involving only partial damage should, so far as possible, be left until after the crop has been harvested and put into marketable form so that quantity and grade can be determined. This makes possible economy in adjustment expense.

8. Lastly, there must be a certain degree of understanding between the farmers and the company or agency offering the insurance if protection is to be available on truly favourable terms. Crop insurance must be brought on the same principle as fire insurance is purchased, merely as a guaranty

against serious loss, and not with the expectation of securing an indemnity every two or three years. If the insurance is to be written with the idea that frequent indemnities for minor cases of crop damage are to be paid, it necessarily becomes so expensive that those in greatest need of it can ill afford to buy it. The insured should find some method of helping the organization providing protection to reduce the heavy expense connected with the acquisition of business which now prevails in nearly all lines of insurance, at any rate where the business is conducted on a commercial basis. In some of the European countries, farmers' organizations have applied the principle of collective purchasing to their insurance problems. Perhaps the farmers' organizations of the United States will find some way of solving this problem on a plan consistent with American laws and American conditions."

There are some more suggestions made on the American program. We may stop this discussion here however, as due to circumstances all we can read about it now is, in fact but the first few steps on the way to a full development of this generous enterprise. It is our sincere wish to learn a lot more about it, to get informations about the field-experience of the scheme, in order to test our suggestions, and to sharpen our thoughts on this very interesting American design.

"THE OBLIGATION IN CROP-INSURANCE"

SUGGESTIONS MADE BY Dr. Jur. CURT ROMMEL

Before us we have two publications, the first is by Dr. Jur. CURT ROMMEL and is called: "Das Obligatorium in der Ernteversicherung", and the second is a criticism on this publication in "Neumann's Zeitschrift für Versicherungswesen", 1943, page 48 and 49, a criticism by Dr. SCHLUMBERGER, Berlin. If reference is made to one of these two publications, we shall only refer to a certain page where Dr. ROMMEL is quoted.

One can speak of agricultural insurance compulsion only in such a case, when every individual farmer has been deprived of his free decision to insure, and consequently has been, or can be forced to take such an insurance. It is the usual practice of every compulsion, but such has never been actual in this country, except in such cases when the landlord compels his tenant to insure, say against fire, which obligation then forms part of the lease-contract between the landlord and his tenant-farmer.

From this insurance compulsion sprouts *the duty of the insurer to accept every risk related to the scheme, and the class of hazard covered under it.*

In other words, ROMMEL sets against each other insurance compulsion, and the obligation of the insurer to accept an obligatory acceptance (see page 1). This in fact is a sound and sensible way of looking at the matter of compulsory insurance.

However, before entering into details of Dr. ROMMEL's suggestion, we have clearly to state the fact, that Dr. ROMMEL is reviewing the possibilities of an obligatory insurance, which is up to now, by no means covering our own principle ideas on the subject of crop-insurance. We may come to the conclusion during the actual practice of our projected design, that compulsion is preferable to free decision. However, we have not yet reached that stage. For the time being our plans are limited to the question whether the insurance is possible, and our interest is confined to the question as to how and in which way these plans should be suggested to the eventual parties interested.

Next to this we consider in how far these plans can be launched in this country or in parts of it. Such will depend entirely on the practical investigations which we shall have to make, in order to calculate a premium. These premiums burdening the profit of having an insurance policy, are in fact the limiting factors of the enterprise, they are holding the field. Therefore this study has to be considered as a criticism on existing forms of crop-insurance, and secondly, it contains a suggestion which may steer this affair into new channels, according to which this experiment can be directed, or, the old form be improved.

Returning to the publication of Dr. ROMMEL, the latter stipulates the following conditions for an insurance obligation:

A. *There should be a general, Governmental interest.* He writes:

"The social-political interest of the Government is directed towards the subsistence of the socially weak, who cannot help themselves, nor provide for their future, which should be secured (page 2).

Besides, the social-political interest of the Government is determined by the way of production by the Nation.

B. *The danger should be generally existing, and wide spread* (page 2). In other words, if no hazards are available, insuring would be aimless. In Switzerland there are the perils like rock-shedding, inundations, avalanches, etc. besides fire, hail, and storm, perils indeed, against which one can insure himself. Dr. ROMMEL refers here to insurances as one finds them in Russia ("Gostrach") and in the U.S.A. (see previous chapter) which insurances imply failures of crops.

C. *The voluntary insurance should have failed* (see our page 53/54). Dr. ROMMEL writes (see page 3) that the insurance obligation may be put into force, if firstly the two conditions mentioned above are fulfilled, secondly, if the private insurance has failed, either entirely, or partly. Regarding the partial failure of the voluntary insurance, the attitude was pointed out to the hail-insurance companies, which are quite prepared to insure certain risks as far as private interest is concerned, no further.

That means eliminating all kinds of objects which really are subject to great hazards and consequently badly need insurance cover. As the people interested in those parts of the country are unable to insure their properties against the threatening perils, either due to exclusions by the insurance companies, or due to the premiums which prove to become too heavy a burden, there remains in such cases undoubtedly a great task for the Government.

The conditions considered by Dr. ROMMEL for the execution of an insurance compulsion, are summarized by Dr. SCHLUMBERGER:

"... one cannot imagine a crop-insurance without the financial support of a Government. If putting into action the compulsion, this Government has to take great care not to charge the assured more heavily than strictly wanted with regard to the actual risks involved."

The boundaries between which the insurance compulsion should be exercised are, the achievement of the aim of the insurance compulsion as the bottom limit, and the top limit projected there, where the public interest has come to an end.

"The top limit in particular is of importance, if substantial subscriptions by the Government have to be converted in order to support the insurance."

The advantages and disadvantages of the scheme are compressed by Dr. SCHLUMBERGER in the following words:

"The advantages of an obligatory insurance are above all, the impossibility to eliminate heavy risks, reductions of propaganda and of working expenses, as well as balancing the risks. ¹⁾ On the other hand there are a number of disadvantages, which should be seriously considered by all who are concerned in these suggestions. To start with, there is the psychological momentum in the compulsion to be considered." (We have seen this same consideration, when reviewing the American scheme.)

"In particular this compulsion will be felt as a heavy burden by all those who do not actually need this insurance..." who do not actually need this compulsive security, we should like to add.

We brought this point to the attention, when dealing with the capable and the not-capable farmer (see previous chapter page 55), the capitalistic versus the poor farmers of the U. S. A.

¹⁾ It is not always possible to translate the sentences literally, but we tried to reflect their meaning as correct as possible.

If executing a compulsory scheme, the greatest flexibility should be exercised by the authorities, a flexibility which implies, that the warranties of the policy must leave room for every degree on interest of all concerned.

Dr. SCHLUMBERGER continues:

"The obligation can easily result in a scheme-fixing in order to separate the risks (Schematisierung der Risikoverteilung). To simplify the office work, frequently only few classes of risks are projected, which will result in an unfair division of the rates. In particular the suggestion of an omnium-rate will be wrong (-misappreciated) with regard to the large fluctuations of the hazards concerned, like the hail insurance."

It is not difficult for us to agree on these lines.

Individual farm-rating as provided for by the American scheme and our own project, is decidedly preferable.

"The expenditure of the Governments' advances, result in a general charge for all tax-payers.¹⁾ Specially in crop-insurance, this point should not be considered, as the securing of the entire food position of the population is concerned" (see the note about this from "Der Deutsche Volkswirt", our page 25).

Dr. ROMMEL reviews the insurance obligations existing in Switzerland, Serbia, Yugoslavia, Bulgaria and Poland, all about hail-insurance. In all these countries the insurance-compulsion has been stopped again, except in Switzerland.

No public interest could maintain the obligatory form of insurance. We will not enter into details about these forms and schemes of insuring as they are not of actual interest to us here. Only one thing we should like to state, that the practice of each scheme is entirely dependent upon the amount of statistical figures. If those statistics are not available it will be impossible to judge correctly the possibilities of such a scheme.

¹⁾ We may quote in full what Dr. SCHLUMBERGER writes on this:

"Die Aufwendung staatlicher Zuschüsse hat eine Gesamtbelastung aller Steuerzahler zur Folge. Gerade in der Ernteversicherung dürfte dieser Gedanke allerdings keine Rolle spielen, da an der Sicherung der Ernährungsgrundlage das ganze Volk interessiert ist. Die obligatorische Ernteversicherung kann sich entweder auf einzelne Wagnisse erstrecken (z. B. Hagel, Sturm, Frost) oder mehrere zusammenfassen (kombinierte Ernteversicherung), z. B. Hagel und Frost, Hagel und Sturm, Dürre und Trockenheit, schliesslich alle Schäden durch Naturgewalten einschliessen, "allgemeine Ernteversicherung" oder "Ernteertragsversicherung"."

But this is entirely a technical matter which need not be further discussed.

Quite a considerable space has been reserved in the publication of Dr. ROMMEL for the scheme worked out by the Russian Government and known under the name of "Gostrach". However, we prefer to refrain from comment. The circumstances which may have given ground to enforce this scheme in Russia might cause disputes on a matter, not advisable in this study. In general the full machinery of the Russian production is a secret, the publication of figures about the annual output may be used to stimulate the activity of the Comintern. The foreigner should be kept ignorant and left in uncertainty with regard to the colossal Russian apparatus, preparing for home- and export use.

At page 32 Dr. ROMMEL deals with Japan. We can learn therefrom that the compulsory insurance was made law in 1939.

"Insurance rests on the basis of the assistance granted to peasants by the agricultural co-operative associations in case of loss of their crops. It is not the individual peasant who figures the insured, but the agricultural co-operative associations belonging to the various communes (communal agricultural associations), into which the peasants or silk worm breeders are grouped. The protection of insurance is provided to the individual peasant through the communal agricultural association to which he belongs" (from the English translation of "Das Obligatorium", page 30/31, by Dr. ROMMEL).

Insurable in Japan are rice, mulberry-leaves, grains, which represent 70 % of the total agricultural industry. (We note here, that only crops of vital interest are insurable.) The perils insured against are hail, storm, drought, inundation, partly also moisture, frost and some diseases. The claim-settlement is on mutual terms. The Government takes reinsurance for 70 %. Premiums for rice are somewhere round about 3.78 %, mulberry-leaves 2.92 % and cereals 1.69 %. We know very little yet of the operation of this Japanese scheme.

In the last chapter of his publication Dr. ROMMEL states that obligatory insurance only, is the way to reach public, economical and social targets. As the compulsion has some considerable disadvantages, it may in some cases be considered a neces-

sary evil. Therefore compulsory insurance should only be enacted if public interest is available and compulsion can only be extended to the limits of the aims intended.

There are two sides of insurance compulsion. First there is the condition, which is the objective estimation of the agriculture itself, its economical interest, its yield of rents, the cultivated acreage and the frequency and amount of claims. On the other hand there should be a valuation of these objective features by the Government authorities, in order to judge whether compulsion should be introduced, its organisation, and the limitation of its obligatory nature (see Dr. R. page 43).

Here the author starts entirely from the standpoint of an obligation by the Government, an obligation like the paying of taxes, the capacity of which paying belongs to the judgment of the Government.

As a "conditio sine qua non" this obligation is governed by the willingness of the farmers concerned, to come to a realisation of the scheme. Dr. SCHLUMBERGER writes:

"The obligation must offer actual profit to the farmers, by which provision they are placed in a better position compared with either not having this compulsion, or, compared with the voluntary insurance. The result is, that if voluntary insurance can give the same advantages as the compulsory, the latter should be abandoned."

Dr. ROMMEL's word in this respect is, that the ideal position should be free-competition. Without entering into the details hereof this proviso in general is correct. Perhaps there may be a compromise between the Japanese scheme and the private enterprise.

With regard to the settlement of claims, Dr. SCHLUMBERGER writes that this is not so simple as Dr. ROMMEL thinks it is. The latter would be satisfied by being informed after harvesting about the total output of the separately insured crops. Dr. SCHLUMBERGER quite correctly, interferes here by saying that we have to take into account human weakness. We may mention here that Dr. ROMMEL planned a franchise, as is our own design. So smaller claims are not recoverable under the policy. We coped with this matter by introducing a 50 % indemnity condition as well as a franchise. As we are not interested in the detailed planning in respect of the premiums,

we might quote the words of Dr. SCHLUMBERGER once again to end the technical part of the publication of Dr. ROMMEL.

"In respect of the premium-rate, ROMMEL emphasizes that if the private insurer, nowadays, cannot make ends meet without an individual rating, such should particularly manifest itself in the compulsory insurance. A fixed arrangement of rates is the condition. Variable rates are not to be recommended in the scheme of the obligatory insurance. The obligation must have the support of the Government otherwise it will prove no better than the voluntary insurance..."

It has been pointed out (see our page 43) that also in our suggestions we introduced the fixed rates, however, individually computed as far as possible. The private insurer can follow these lines, but he will find himself in continuous competition with others and consequently his rates have to be competing.

According to the scheme under discussion (the compulsory scheme) the determination of the sum insured has to be made by the insurer. This sum insured should be based on the costs of production. Such is wanted, as in the first instance those costs have to be secured, specially with regard to the continuity of the farm's exploitation, and secondly because these costs of production are below the total proceeds of the yields (generally speaking). By doing so, one can, it may be said, force down the costs of the policy, i. e. keep down the premium to be paid (see Dr. ROMMEL, page 51) "da diese in der Ernteversicherung zumeist recht hoch ist."

In relation to the indemnification of losses Dr. ROMMEL writes:

"The indemnity should be sufficient, in other words, the assured should be able in case of damage or loss of produce, to continue his profession. The indemnity on the other hand, need not be so high that the farmer also gets a compensation for his loss of actual profit."

We have to dwell on this subject for a moment. By this argument of the author of "Das Obligatorium", it should be kept in mind that it is closely connected with the argument mentioned just before in respect of the premium. He wants to emphasize the necessity to make the indemnity attractive on the one hand. However, on the other hand, the premium must never appear to be the limiting factor in the conception, and

consequently blockade the execution of the scheme. The compromise seems to imply a lowering of the sum insured, but this means that the reimbursement will be small if the policy is not valued. In case we have a valued policy, the premium again will show the tendency to be higher still. Anyhow, whatever appears to be the solution of this delicate problem, the reimbursement will never be a large one, nevertheless it should give security and have attraction to the farmer who by accepting the reimbursement, can continue his profession.

But if it has appeared to be necessary to put into action an insurance obligation, this means that the agriculture has reached the limits of the practical possibilities (see first chapter of Dr. ROMMEL's publication). The parties interested in such an obligation or rather, the parties who should be interested, are burdened by the premium, which as Dr. ROMMEL's fear is, will not be a small one, and moreover, these parties will be accomodated by only a minimum compensation in case of losses. We wonder much whether this compensation will meet with the actual needs if losses should occur. This seems consequently the point where the Government shall have to be brought into the battle. We will consider this later on in our last chapter. To finish this one we quote the conclusions by Dr. ROMMEL, which will be commented upon in only few words.

1. "The compulsion is not merely a target for private enterprise, it is one of the means to come to a Governmental objective."

We have already seen how great an interest a Government can exploit in the safeguarding of the agriculture of the Nation. Reference can be made to the Federal Crop Insurance Act in the U. S. A., the scheme of the "Gostrach" and the one in Japan, next to several other design in other countries.

2. "The compulsion is subjected to certain general suppositions; public interest, generalizing of the class of perils to be insured, lack of insurance possibilities or favourable results of the existing voluntary insurance."
3. "The insurance obligation substitutes the compulsion in the place of the free decision of the parties interested; this is a very unwelcome element. The insurance obligation should consequently not be extended beyond the public interest. This particularly with regard to the growths to be insured (only the main growths should come into consideration) as well as in respect of the sum insured."

If the Government of a country is of opinion that this compulsion should be enacted, due to circumstances which necessitate this attitude (like military conscription), the consequences thereof have simply to be forced upon the population, realizing that such is done for their own benefit. No doubt the greatest flexibility should be exercised and guaranteed by the authorities.

Whether only main growths should be insurable remains a matter of consideration. In principle we are of opinion that all kinds of crops should be brought under the scheme. However, it might be wise for the time being, not to put too many irons into the fire. To the scheme itself there is no time-limit. If wanted, every crop can be insured after experimental knowledge has been collected.

4. "As insurance compulsion always works painfully and also small disturbances are felt to be inconvenient, the obligatory insurer has to do his utmost to reduce the feeling of compulsion for the assured to a minimum, to meet his difficulties in any way open to him, and to execute his business better than any optional insurer. Financially and professionally, depending on the premium-rates and security, the insurer of compulsory policies has to compensate as much as possible."

Dr. SCHLUMBERGER commented on this section by writing:

"This compensation "as much as possible" is, with regard to the adjusting of losses, only to be interpreted as an affair of efficiency-technic, not however, as generosity in respect of the indemnity, which would lead to a prejudice for the nonclaimants, and which thus consequently results in the insurance becoming more costly."

So far the footnote of Dr. SCHLUMBERGER in his discussion of Dr. ROMMEL's publication. This elucidation is evidently one made in the spirit of a man who is disappointed in his experience as a claim-adjuster.

5. "If the compulsorily assured should get a privileged position considerable financial sacrifices by the State are needed, sacrifices however, seem to be justified in respect of the public interest in this insurance."

This conclusion of Dr. ROMMEL, leads to our conclusion, that if the consideration is correct, which in its turn can only be proved by the experience gained elsewhere, the compulsory insurance of agricultural crops, is only justified if the Govern-

ment is prepared to proclaim the insurance a Governmental-interest. But if so, there never need be any question about premiums and simply the eventual losses are of interest. If the Government really wants to back the obligatory insurance such will be manifested by the necessity to carry the insurance whatever happens, regardless of its advantages or disadvantages. Consequently this Government has only to reckon with the highest claim and not with the highest rate to be paid. This not being the case, we appreciate that in spite of the interest, the Government may have in the enterprise, there should be a commercial background to the entire affair, which conclusively we quite agree is perfectly correct.

AGRICULTURAL INSURANCE ALREADY KNOWN IN OUR COUNTRY

Insurances already existing in the agricultural world of our country, are in fact rather scarce in their variety. Certainly, there are many insurance companies occupied in the insurance of rural interests. However, these are limited to fire-, hail-, cattle diseases, war-, social insurances and a few more. The classes in particular of interest to us, are those which we may classify as related to agricultural insurances, so avoiding those in respect of fire and cattle as directly causing losses, and those of the loss of profit-insurances, which we like to classify under the group of indirect-insurances.

Here we may give attention to the conditions of some hail-insurances, to the conditions provided for to cover the risk of storm and lastly we can refer to an American policy, which gives protection against the combined risks of frost, hail and tornado.

The conditions which will be brought forward, are taken from insurance companies, incorporated on mutual terms, except for the American reference. So we can meet here, besides the provisions regarding the actual regulations on premiums and indemnities, some typical disadvantages of the conditions as required by those mutual corporations.

But before coming to that point, we like to refer to a publication by Dr. BRUINSMA, made in 1907, on the matter of hail-insurance in general.¹⁾

From this publication we learn that previously the indemnity for hail-damage was derived from charitable sources. In 1891 a calamity occurred causing a damage of Fls. 1.500.000.—. By means of charity there was collected an amount of only Fls. 150.000.—, in other words no more than 10 %. This charity proved to be entirely inadequate to meet with the actual necessities. Several suggestions were made to come to a great and satisfactory plan. There should be incorporated a powerful hail-insurance company. It was in 1894 that the

¹⁾ Dr. G. W. BRUINSMA; "Verzekering tegen Hagelschade."

establishing of a company (still existing) came about and the insured value of that company in the first year, according to their books, showed the figure of Fls. 120.039.—. Nearly fifty years later, this insured value had been increased to Fls. 73.000.000.—, and this company is now one of many others.

As we said before, we are in general not prepared to give any names of companies, neither mutual nor joint-stocks.¹⁾

Dr. BRUINSMA gives some more particulars about the establishment of some companies, into which we need not enter details. His conclusion is that:

“... insurance against the consequences of hail are urgently needed in the agricultural world, in order to avoid occasionally insurmountable losses, which may mean that the farmer has to throw himself on public or special charity, and which charity will only partially meet the wants of this farmer.”²⁾

Dr. BRUINSMA indicates that agricultural tuition can do a lot to improve the general feelings towards insurances. A general insurance for the entire country, for all crops, is though not indispensable, most advisable, and to meet this, compulsory insurance, perhaps too radical to many a mind, would be *the* one solution.³⁾ This, Dr. BRUINSMA wrote in 1907.⁴⁾ In 1943 we raise this same matter again. There is no particular objection against the suggestion of Dr. BRUINSMA, except perhaps, that we consider it of too little importance to give the idea a real trial as an obligation. Besides, the premiums charged in 1890 were quite different from those charged in 1940. This teaches us, how the appreciation has changed, what correct statistics can show, and why so few people had interest in this class of insurance in that part of the 19th century.

The premium rates as given by Dr. BRUINSMA and the rates of a confessional farmers society in 1940 are quoted here:

In 1891 the “Noord Brabantsche Maatschappij van Landbouw” decided to give insurance cover against the hazards of hail-fall; premium-rates suggested gave the following figures:

¹⁾ Particulars about some hail-insurance companies can be found in the Yearbook for Insurance, edited by W.M. DE BRUYN.

²⁾ See BRUINSMA; page 11.

³⁾ See BRUINSMA; page 14.

⁴⁾ See our page.44; publication Dr. DRESSELHUYNS.

flax	3.0 percent (%)
wheat	1.5 "
rye	1.5 "
winter barley	1.5 "
summer barley	0.75 "
rape-seed	2.0 "
onions	7.5 "

In one of the latest annual reports of the above mentioned confessional farmers' society, for the same province of Noord Brabant, rates in 1940 are like:

flax	11.0 to 16.5 pro-mille (‰)
wheat	3.5 " 4.0 "
rye	4.5 " 5.5 "
barley	4.5 " 5.5 "
rape-seed	15.5 " 17.0 "
onions	12.5 " 13.75 "

In this respect we need not accentuate the differences of these rates of 1891 and of 1940.

A congres of agricultural economists (Wageningen, 1892) agreed by acclamation, on the fact that compulsory insurance was efficient. That was all, we never heard of it again.

Now we may take as an example the policy of one of the Dutch insurance companies on mutual terms, and consider some of its basic principles. Therefore we need not enter into all those details which in fact only deal with the technical side of the insurance business, and the different provisions about the rights of the assured-members with regard to the company itself. It will be sufficient to consider what can be covered and on what conditions. Here and there, we might as well lay our finger on a weak spot of the mutual regulations, but this has just to remain a matter of practical interest, with reference to our chapter on the mutual insurance as a whole.

Again, the aim of this particular company is to give indemnification "as far as possible". Well, here we come to the first barrier. This provision "as far as possible" is rather an unusual objective, if one agrees, according to the same contract (!) to

pay the premium in full. But this is one of the liberties of the mutual companies (see also our page 79, comment of Dr. SCHLUMBERGER).

The losses are indemnified out of the premium income of the current year, plus, eventually, a part of the reserves of the company. *The entire crop has to be insured*, and not only part of it (see our suggestion on page 28). Not insurable is that part, which has already suffered hail-damage. The insurable period is from the 1st of April tot the 1st of October.

The rates are determined by the Directors before the 1st of February. In this particular case, we note fixed rates and no levies. We incidentally know that this special company is re-insured in Switzerland; its re-insurer is a big joint-stock company (see our opinion, page 20).

Hail damage is *not* to be indemnified in the following cases:

1. if occurring before the 1st of April or after the 30th of September;
2. if the claim is less than 5 % of the insured value of one special parcel (we also have the suggestion of a franchise, see our page 34, but our franchise is a "free from ... %" franchise. Here we meet a "free under 5 %" franchise);
3. for special provinces of this country, exceptions are made. In those provinces an additional franchise is provided for. This can of course differ considerably in several policies; so we refrain from mentioning the details thereof separately. It will be enough to state, that the principle of the franchise is met here as well as in the suggestions for the all-risk insurance of our American, and the suggestions of our Swiss friends.

There are some more points, for instance on which refusal for indemnification is made, but those are connected with conditions beyond the actual scope of our interest.

Of importance to us is the section from the policy dealing with the settlement of claims. The claim should be settled by the appraiser of the company, in agreement with the assured. In case the agreement is not reached, the claim is laid in the hands of two appraisers, one appointed by the company, the other, by the assured. These two people appoint an arbitrator. To the decision of the arbitrator both parties are subject un-

conditionally. To compute the claim, the following has to be taken into account:

- a. what percentage of the appraised yield or value of the damaged parcel, *exempli gratia* of the crop and of the straw, is lost entirely due to hail,
- b. for what value(-s) the growth(-s) is (are) insured on the parcel which had suffered the damage.

The insured value shall form the bases in order to settle the claim. If repeatedly damaged, the total losses have to be ascertained once more. The payment of the indemnity is bound to be made after the expiring date of the policy.

That is all we have to say about hail-insurance. It is rather a simple affair. Experience as well as statistics, and a widespread lot of insured objects is wanted, but for the rest it is not a difficult branch of the insurance world as a whole.

A few words may be devoted to the insurance of fruit against the perils of storm. We have before us an insurance policy of a Dutch mutual company. This policy excludes decidedly the consequences of frost, hail and failure of crops, tainted and diseased fruit. The insurable period is from the 1st of August up to the 16th of October. In other words: frost can hardly be expected during this period, not even hail. Different altogether is the provision regarding the tainted and diseased fruit, or even a failure of crops. For instance, what will be the position when these mishaps are caused by some biological phenomenon, unknown up to now? One may already have noticed the changes in the appearance of the fruit, however, the reason being unknown, there are no means to fight it.

This particular policy provides for an extensive list of franchises in the shape of a sliding scale. The trees are divided into two classes, shrubs and full grown trees.

The auction prices for healthy fruit is taken as a basis for indemnification. Further we find the usual company-conditions.

There is however, one condition we like to mention. The condition is typical of a mutual company. There is no other way to meet disagreement about the settlements of affairs

between the company and the assured, than by means of arbitration. It is not possible to place the decision in the hands of the Court of Justice.

The last example we are going to give, is from the policy of an American company (joint-stock) insuring against the combined risks of hail, frost and tornado. In particular this policy is aimed at crops of citrus-fruit, and the application form, which we will partly quote, shows that the sphere of interest is specially in the South-East, Florida.

So the operational field is not our country, but the Company has a re-insurance cover in Holland. We were lucky enough to come across the policy and therefore liked to mention it in this chapter, where we have considered hail and storm insurances.

Next to the usual conditions we read:

"In no event, furthermore, shall this company be liable for loss or damage arising from:

Hazards not specifically insured against;

Failure on the part of the insured and/or grower to abide by the conditions of this contract or to market all fruit covered hereunder;

Failure of the insured and/or grower to collect all proceeds from the sale of fruit covered hereunder and/or to properly account therefore;

Failure to provide proper harvesting and/or packing facilities to take proper care of all fruit described herein;

Failure of grower to spray, fertilize, cultivate and otherwise care for orchard and/or fruit described herein;

etc."

We note herefrom that these provisions are in fact very much like ours, in so far, that we also want to exclude all those consequences due to negligence, uncapability, etc. of the assured.

The total amount insured shall be based upon an estimation. The company shall be free to decline or accept risks according to own views. In case the actual production is less than the estimated one, the loss is subjected to adjustment.

There is an application form, in order to get a clear determination of the risk under consideration. The assured has to certify, that the fruit upon which insurance is applied for, is in good condition and has not been damaged by external causes as the ones insured against.

The total acreage shall come under the insurance policy and will be considered as one unit in the ascertainment of losses. Further conditions of this American policy deal with the insurance period, the disclosure of facts, a franchise (10 or 20 %) and the adjustment of claims. The valuation of the insured sum is based upon the f. o. b. (= free on board) market value.

We don't think it necessary to go into further details about this or other policies. The appreciation is mostly depending on local circumstances, and we are of opinion that what is of material interest in the United States, or elsewhere, need not always be of the same interest to us, except for the instructive conditioning of the policies concerned. These conditions may, however, be entirely inapplicable as far as Dutch agricultural circumstances are concerned.

The conclusion of this chapter is, that these forms of partial and mutual insurance cover, in the main, are unfavourable in our eyes. Our own design aims at an all-risks cover, individually fixed rates, strict but acceptable conditions and a great flexibility in the execution of the suggested scheme.

CONCLUSION

Reviewing our plans on the subject of crop-insurance, now that we have been able to learn something about the activities in other countries, and therefore are able to compare the several systems already in force elsewhere, we are prepared to agree that our design, though still in full strength as far as basic considerations are concerned, is bound to be revised here and there. The chapter dedicated to the first and principle considerations, has expressed why that chapter has appeared in the form it did.

This new form of insurance, new anyhow in this country, is simply bound to undergo a number of alterations when the time comes that it will be put into action. But before this, we have to reckon that we do not insure a "dead" matter, but that the subject on hand is live matter.

If we, for only a few moments turn our attention to the world of international economics, we learn that this liveliness of agriculture is clearly proved by its sensitiveness, which sensitiveness in its turn is manifested by its relation between being the producer of foodstuffs, and the world population. It would take us too far from the actual subject to deal with it more substantially, but a few words may be devoted to the matter.

Only small disturbances in this mentioned relation are sufficient to cause the most costly consequences. The crisis of 1929 and following years is, besides other items, due to the disturbance of the above mentioned relation.¹⁾ Though it might have been apparent to agricultural producers that this world crisis was related to a certain amount of overproduction, it took however, several years to fully realize it, and to realize that only this small percentage of overproduction played its part in the international disturbance, the catastrophic consequences of which are assumed to be generally known.

However, next to the production of foodstuffs, agriculture is a producer of many materials, now used for manufacturing purposes. For our country we will mention, potatoes, sugar beets, flax, rape-seed, etc.

¹⁾ VERRIJN STUART; page 125, etc.

It is not really necessary that agricultural crises keep pace with general economical crises. The reasons may spring from different sources, but now and again they do coincide. There are economic forces which effect the farmer, owner or tenant, in such a way, that the parties concerned have to change over their subsistence which was chosen in earlier times by their own free will. Another side of farmers' life in general (here we do not mean the landlord), is, that in spite of adverse economic forces, which the countryman knows how to overcome, and thus holds his own among others, he profits from frequently only short periods of prosperity, in order to provide for years of depression, paying the costs of the farm's industry and the upkeep of all that belong to it. These overhead expenses are not to be reduced so easily and are certainly not keeping pace with the downward movement of the diagrams of values in the direction of the zero line.

Nevertheless, our country proves to be in many respects a happy exception to other countries. Prof. DIEPENHORST writes: ¹⁾

"... the country is covered, with farms of which the harmonious composition, with regard to the size of the farms, is most surprising,"

while Prof. MINDERHOUD ²⁾ in his publication "De Nederlandsche Landbouw" is quite content about the economical resistance of this, his country. Moreover the latter writes ³⁾ that:

"the variety of growths, limits the economical risks of the agricultural industry."

It may sound strange to quote these opinions here, as their relation to our design of crop-insurance seems to be so very remote. Nothing is less true in fact. As insurance is based in many respects on extreme good faith and morality, it is of material importance to know (in particular when launching a new enterprise) whether or not the most basic part of that enterprise, i.e. the assured, are as a whole, economically speaking, a sound foundation.

¹⁾ DIEPENHORST; "Onze Landbouw", page 434.

²⁾ MINDERHOUD; "De Nederlandsche Landbouw", page 15, etc.

³⁾ MINDERHOUD; "De Nederlandsche Landbouw"; page 43.

Economical harmony and a harmonious structure of our national agriculture, form the pillars of great help on which the building of crop-insurance has to be erected.

When on our page 22 we brought forward the question: "Why agricultural insurance, at all?" we stated there, that the agricultural world has become an industrial world. An industry however, not equal to the manufacturing industry, but undoubtedly subject to many factors which also influence this agricultural industry, making it vulnerable, sensitive for occurrences which are the consequences of human power, human interferences.

Next to that, there are influences and events of a super-human nature, which threaten the agricultural world, but not, or anyhow not to the same degree, the manufacturing industry. If one likes to put it in another way, one could say, that as the manufacturing industry has a dynamic character, like the entire world constellation has a dynamic character,¹⁾ the nature of the agricultural industry shows a tendency towards the statical equilibrium. The manufacturing industry in general has little or nothing to do as a whole, with that element "Nature" and consequently can change over its production from one article to another, eventually can even stop the entire production-process of such an article. This is not possible in the agricultural industry. That latter is slow.²⁾

MINDERHOUD writes:

"... the character of agriculture in one part of the country is qualified by the temperature and the rainfall during the several months of the year, as well as by the physical and chemical conditions of the soil; all these are items which can only partly be dealt with by human action.

Lack of freedom in respect of Nature exists accordingly to far greater extent for agriculture than for the manufacturing industry. Changes in economical circumstances can therefore make it appear to be extremely difficult to adapt those circumstances to agriculture, as they frequently clash with factors governed by Nature."

Indeed, we quite agree on these lines, but if we read from the same Author³⁾ that:

"the prices one expects to obtain in the future play an important part in planning the farming-scheme for the coming year..."

¹⁾ VERRIJN STUART; page 14/15.

²⁾ MINDERHOUD; "De crisis in de Nederlandsche Landbouw", page 1/2.

³⁾ MINDERHOUD; "De Nederlandsche Landbouw", page 14/15.

this sounds rather contradictory to the quotation on which lines we were apt to agree.

Indeed, prices are published let us say, before this farming-scheme is bound to be made. In any case it will be only a short time before. According to the last quotation the farmer will steer the sowing-scheme towards the promising appearance of some particular products. Besides, such is a matter of "working after the market", with all its resulting disappointments, etc. Doing so may be human, it does not cover the allegation that it will "appear to be extremely difficult to adapt to these (changed) circumstances."

But we may leave this matter and find a recapitulation in the words of VERRIJN STUART¹⁾ where we read:

"Cereals, in general, meet an un-elastic demand"

and also, the same Author, speaking about crises in the agricultural world:

"A general wave of conjuncture of 7 to 11 years, is, contrary to the manufacturing industry, not evident.

One can however note a number of continued waves of increasing and decreasing prosperity, which presumably represent an important part of the long-waves of the conjuncture."

Well then, the assertion of DIEPENHORST, with regard to the harmonious composition of the size and spreading of our farms, is, seen, from the point of view of the insurer, indeed very promising. This constellation of farm-industries forms insurance-technically a very attractive basis in respect of the distribution of risks. But, there is another feature of little less importance, which also compared with other countries, places our homeland in a special position. It is *the production per ha*, which is far greater here than in many other countries. If we may turn the attention for a moment to the statistical figures as collected from the publications of the "Annuaire International de Statistique Agricole (1940-41)", produced by the Institute International d'Agriculture at Rome, it is interesting to learn from those figures, the position our country takes in the ranks of other agricultural countries.

¹⁾ VERRIJN STUART; page 46 and 56.

COUNTRY	Yielded in quintals/ha	
WHEAT	Average 1930/34	Average 1939
Belgium	25.8	28.2
Denmark	28.9	31.7
France	15.5	15.9
<i>Netherlands</i>	29.7	33.6
Canada	9.1	12.9
U. S. A. (area harvested) ...	9.1	10.3
U. S. S. R.	7.2	9.8 (1938)
Germany (incl. Saar)	21.5	27.4 (1938)
idem (Saar and Austria)		27.4 (1939)

RYE		
Belgium	24.3	25.8
Denmark	17.4	17.6
France	11.5	12.5
<i>Netherlands</i>	22.3	26.8
Canada	6.5	8.7
U. S. A.	6.7	6.4
U. S. S. R.	8.5	9.7 (1938)
Germany (incl. Saar)	17.3	20.2 (1938)
idem (Saar and Austria)		19.6 (1939)

BARLEY		
Belgium	26.6	26.4
Denmark	27.9	29.6
France	14.3	16.7
<i>Netherlands</i>	28.0	35.5
U. S. S. R.	8.6	8.9 (1938)
Canada	10.8	12.8
U. S. A.	10.8	11.7
Germany (incl. Saar)	19.9	25.4 (1938)
idem (Saar and Austria)		21.8 (1939)

OATS		
Belgium	25.2	28.0
Denmark	25.8	26.8
France	13.9	16.5
<i>Netherlands</i>	20.3	27.7
U. S. S. R.	8.6	9.8 (1938)
Canada	10.2	11.5
U. S. A.	9.4	12.7
Germany (incl. Saar)	18.8	23.6 (1938)
idem (Saar and Austria)		20.9 (1939)

POTATOES

Belgium	214.8	225.2
Denmark	165.5	176.4
France	110.5	112.7
<i>Netherlands</i> — a —	182.2	232.9 for consumption
idem — b —	251.7	285.8 for starch manufacturing
Germany (incl. Saar)	160.0	175.9 (1938)
idem (Saar and Austria)		177.8 (1939)

We can learn from these figures that the production per ha in nearly every country has gone up, and that the output/ha in our country is considerable higher than for instance in the U. S. A. or France. Compared with France, our production of cereals and potatoes/ha is about twice as much. This means, that claims arising under crop-insurance cover here, are twice as costly as they would be in France, provided the same acreage is taken into account. On the other hand the insured value per ha will be accordingly higher here, while the cultivated area in France is far more exceeding the double of ours.

The figures as quoted above are naturally average-figures from the entire country and this manifests again the necessity to calculate as our scheme indicates, an individual farm-rating, as much as possible.

If we take for instance the scale of premiums for hail-insurance, as one of the mutual companies charges, we may find a rate of 3 ‰ for oats, barley and rye in the North of Holland, and 6 ‰ for some parts in the South of this country; thus it is impossible, from an insurance standpoint to charge an average premium-rate of 4½ ‰, as the people in the Northern provinces will consider this far too high, while the farmers in the South will jump at it, and cause the bankruptcy of the insurer within a short space of time.

In opposition to the ascertainment of the fact, that insurance-technically, the composition of the Dutch farminstry, as a whole, is most favourable with regard to eventual enactment of the scheme, we have to centre our attention on a question, which strictly speaking is considered to be the most elementary one in the entire design. This question is, that if this agricultural community in Holland has relatively taken

such an advantageous position, and if economically speaking that position is so favourable compared with the agricultural position of foreign nations, is there, and will there still be, a motive to increase this comparatively secure economical position and its firmness of construction, by adding an insurance to it, i.e. the possibility to insure against the misfortunes of agricultural industry? *In other words, will this insurance scheme be felt as a need?*

It is not an easy matter to give an answer to this so positively composed question.

If we may refer for one moment to the fire-insurance, we only need to go back 200 years to read in the Rotterdam "Keur" (1721) a total banishment of the fire-insurance. It was in 1744 that for the first time a Dutch Law ("Amsterdamsch Stedenkeur") one single article was devoted to fire-insurance. The same we find in 1809, when a committee of lawyers had to draw up a scheme for a new Commercial Code, in which scheme only one section dealt with fire-insurance. It seems therefrom that only very little attention was given to this particular matter of insurance business. Rates were pretty stiff and the whole affair, though considerable in proportion, did not have the attention of the public in general, and certainly was not in favour with the population as a whole. Only business men, who had their goods stored in warehouses, larger properties, etc. came within the scope of fire-insurance transacted in those days.

Next to this consideration, the matter of crop-insurance had never really been brought to the attention of the public as an interested party. No experience could be collected from the past. Therefore, if we have to answer the question whether or not crop-insurance will be a success, one thing we can say about it more definitely is, that if the costs of the insurance is not felt to be too heavy a burden, an increase in the security of farm-industry can never be considered as superfluous. The greater the security, the safer the future can be. Another thing is, that the higher the production has been carried up, due to economic necessity, the more the financial result will reach the borders of stability (see also our page 49 etc. with reference to the right of remission).

We have seen in the U. S. A. scheme, that an educational factor has to be brought into force.

The Dutch Yearbook for Insurance (edition W. M. DE BRUYN) informs us about a great many hail-insurance companies (most of them on mutual terms) which are doing business in this country. This hail-insurance business, though young, has been quite successful. Why should crop-insurance not be so fortunate? If the insurer has gathered some experience in the matter, it may become necessary to introduce some alterations and restrictions, but then, the business itself may expand considerably.

However, there are two particular conditions to which this form of all-risks crop-insurance is subjected:

- A. To give such cover as is needed or which can be considered necessary.
- B. To calculate a premium-rate in respect of the conditions wanted and in respect of loss-experience. This premium should be within the reach of the farmer's working expenses.
(See also the quotation from the Bulletin No. 1043, our page 69.)

In relation to point A we note that the cover should be juridically within the limitations of the wording provided for by section 246, Commercial Code (see our page 6).

To meet with the requirements under B is more complicated, and certainly for the private insurer. We are ready to agree on a suggestion in the direction of the Japanese scheme (see Dr. ROMMEL, page 32), provided, that the principle of fixed rates be maintained as well as the conditions of a franchise and certain percent claim-settlement. (We suggested 50 %, but will refer to this again later.) The other items of our scheme can, if necessary, be fitted in with the practice of the insurance. Here, those have served merely as indications. We will leave further re-considerations to those who eventually will be concerned.

It was during the second half of the nineteenth century, that great changes took place in the farming life of this country.

After the consecutive waves of crises and times of prosperity, people became conscious that, apart from some growths already directed towards working up the manufacturing industry, agriculture could become the great producer for this latter industry. We can see the establishment of many factories for potato-flour, straw-board, condensed milk, etc. etc. Though this consciousness may probably not be reckoned as a "réveil" of the farming world, the outward appearance thereof changed considerably. The realization awoke all over the country, that the farm's production could be used for other purposes than for human consumption only. The farmer's existence became dependent for an important part, on this newly erected industry. On the other hand, the manufacturing industry became dependent on the agricultural productivity. *There was to a growing extent reciprocity between those two industries.* Co-operative- and speculative concerns were formed, sharp competition followed between the two, but afterwards, by adopting each other's commercial conditions, the most contested sharpness died down.¹⁾

We need neither enter into further details on this point, nor into the advantages and disadvantages of co-operative- or speculative industrialisation, but we had to place our finger on this spot, as at present the position is such, that the farmers became in many cases the suppliers of these new manufacturing industries. Even more, these industries form in many cases the single outlet for certain growths. Consequently it will appear of material interest to those farmers, that their incomes should not be backed by the contract with those manufacturing industries only, but also be covered against the possible hazards of Nature, by which the fulfilment of the industrial contract may have to be postponed or even broken. This would result in a loss of income. As we have illustrated before (see our page 40, etc.) the general idea of crop-insurance is in fact intended to give cover against loss of income, provided the cause of the loss are the result of natural influences.

No doubt, that though at the time these manufacturing industries were not yet established, also at that time such natural influences could occur. However, due to the fact that

¹⁾ MINDERHOUD; "Landbouw Coöperatie in Nederland", page 152 etc.

the exploitation of farm industry at present is something quite different from the exploitation in the old days, becoming more hazardous than it used to be (due to expensive machinery, intensive fertilisation, the speculative hazard like growing specific crops for industrial purposes, etc.), it is now of far greater importance that these risks should be borne, i.e. covered by insurances. (This supposition runs parallel to the aim of every European Government, namely to preserve a strong and well built class of farmers.)

As brought forward on our page 28, the suggestion to investigate whether and how crop-insurance could be introduced, was made independent from existing schemes. In order to get an impression of the subjected matter, figures were asked for from several sources, i. e. farm-industries in many parts of the country. Although we have not been privileged to receive all we wanted, we have some valuable information at hand, for which we are very grateful.

In particular we want to refer to those informations we obtained from ten farms from our so-called peat colonies. The arrangements of the averages are quite obvious and doesn't leave room for doubt. There is first a table dealing with the averages per ha.

Such is done per farm and per year.

Also the average price is given per hl.

An average is computed per crop and per ha, including the year 1940, and one without it. Then these averages are rounded off to easy calculations, after which the franchise is brought into account (three different percentages are given, which is considered sufficient to get a good impression).

TABLE I

WHEAT

YEAR	FARMS										price per hl.	
	Nos.	1	2	3	4	5	6	7	8	9	10	Fls.
1931	33	34	32	32	33	33	42	41	22	36	36	7.77
1932	37	36	45	35	40	31	40	44	36	37	37	7.43
1933	47	48	42	43	45	41	45	45	37	43	43	7.95
1934	58	52	53	51	39	42	52	55	43	40	40	7.58
1935	48	44	46	47	43	40	48	55	44	49	49	6.82
1936	41	46	30	40	37	35	41	44	32	34	34	6.42
1937	40	43	33	38	34	35	31	42	31	30	30	6.60
1938	43	54	50	47	47	43	51	56	48	42	42	6.89
1939	45	44	36	38	40	35	39	44	38	36	36	7.82
1940	45	45	44	43	45	44	45	49	36	46	46	8.93
Average/ha												
Incl. 1940..	43.7	44.6	41.1	41.4	40.3	37.9	43.4	47.5	36.7	39.3	39.3	
Excl. 1940..	43.6	44.6	40.8	41.0	39.8	37.2	43.2	47.3	36.8	38.6	38.6	
Rounded off	44	45	41	41	40	37	43	47	37	39	39	
Franch. 25 %	33	34	31	31	30	28	32	35	28	29	29	
20 %	35	36	33	33	32	30	34	38	30	31	31	
15 %	37	38	35	35	34	32	37	40	31	33	33	

RYE

1931	43	42	49	44	42	40	44	44	40	43	3.09
1932	50	45	52	41	41	42	—	49	48	46	2.69
1933	49	40	49	46	51	42	50	48	39	48	5.48
1934	67	49	46	50	51	53	55	56	47	49	5.69
1935	50	48	38	43	46	48	44	49	47	49	5.19
1936	41	38	43	40	42	44	45	43	40	42	5.77
1937	42	39	38	36	46	35	48	44	32	42	5.24
1938	43	41	43	34	49	32	42	45	43	42	5.38
1939	54	56	49	46	54	55	70	58	47	49	6.47
1940	26	32	33	29	30	28	29	32	27	21	7.34
Incl. 1940..	46.5	43.0	44.0	40.9	45.2	41.9	47.3	46.8	41.0	43.1	
Excl. 1940..	48.8	44.2	45.2	42.2	46.9	43.4	49.6	48.4	42.6	45.6	
Rounded off	49	44	45	47	47	43	50	48	43	46	
Franch. 25 %	37	33	34	31	35	32	37	36	32	34	
20 %	39	35	36	34	38	34	40	38	34	37	
15 %	42	38	38	36	40	37	42	41	36	39	

OATS

1931	64	65	71	63	69	61	44	65	62	72	2.98
1932	89	72	71	63	79	81	67	80	59	83	2.18
1933	80	71	75	63	84	63	77	74	56	80	2.62
1934	92	82	70	74	90	77	80	84	74	79	2.84
1935	83	88	83	79	96	88	84	92	74	100	3.20
1936	90	68	74	75	84	75	80	94	80	90	3.47
1937	72	77	70	67	85	81	79	84	68	85	3.17
1938	97	98	75	83	100	81	96	99	78	96	3.18
1939	89	113	75	68	85	88	97	85	91	79	4.07
1940	89	102	94	67	83	99	87	96	96	92	4.62
Incl. 1940..	84.5	83.6	75.8	69.6	85.5	79.4	79.1	85.3	73.8	85.6	
Excl. 1940..	84.0	81.6	73.8	69.9	85.8	77.2	78.2	84.1	71.3	84.9	
Rounded off	84	82	74	70	86	77	78	84	71	85	
Franch. 25 %	63	61	55	52	64	58	58	63	53	64	
20 %	67	66	59	56	68	62	62	67	57	68	
15 %	71	69	63	59	71	66	67	72	61	71	

BARLEY

YEAR

FARMS

Average
price
per hl.

Nos.	1	2	3	4	5	6	7	8	9	10	Fls.
1931	—	35	55	36	45	45	42	43	—	—	3.78
1932	—	50	47	39	—	32	47	—	—	—	2.43
1933	—	—	41	26	50	—	—	51	—	—	5.63
1934	50	54	42	47	44	—	—	49	47	39	5.47
1935	50	—	—	40	44	—	—	58	50	47	5.25
1936	45	—	—	46	50	—	—	45	—	—	5.22
1937	52	—	—	35	46	—	—	48	—	48	4.84
1938	44	—	—	68	53	—	63	68	—	46	5.11
1939	51	—	—	31	49	—	75	63	45	57	6.24
1940	49	—	—	40	—	—	59	60	46	—	7.56
Incl. 1940..	48.7	46.3	46.3	40.6	47.6	38.5	57.2	53.9	47.0	47.4	
Excl. 1940..	48.7	46.3	46.3	40.7	47.6	38.5	56.8	53.1	47.3	47.4	
Rounded off	49	46	46	41	48	39	57	53	47	47	
Franch. 25 %	37	34	34	31	36	29	41	40	35	35	
20 %	39	37	37	33	38	31	46	42	38	38	
15 %	41	39	39	35	41	33	48	45	40	40	

Average
price
p. 100 kg

POTATOES

1931	394	433	341	346	373	437	351	400	375	346	0.78
1932	492	484	398	482	438	472	469	436	487	449	0.69
1933	494	457	481	465	406	436	450	484	430	457	0.77
1934	604	612	593	485	481	530	601	582	566	580	0.82
1935	567	583	530	486	510	450	580	607	534	539	0.78
1936	478	447	462	476	474	454	500	522	420	516	0.78
1937	478	462	427	491	456	457	463	522	451	436	0.85
1938	504	550	450	487	516	520	503	497	483	500	0.87
1939	586	538	508	450	524	478	439	547	485	492	0.93
1940	451	392	357	372	352	459	365	425	384	450	1.19
Incl. 1940..	504.8	495.8	454.7	454.0	453.0	469.3	472.1	506.5	461.5	476.5	
Excl. 1940..	510.8	507.3	465.6	463.1	464.2	470.4	484.0	515.6	470.1	479.4	
Rounded off	511	507	466	463	464	470	484	516	470	479	
Franch. 25 %	383	381	349	347	348	353	363	387	353	360	
20 %	409	406	373	371	371	376	387	413	376	384	
15 %	434	431	396	394	395	400	412	438	400	408	

TABLE II

CULTIVATED AREA IN HA									
FARM 1	1931	1932	1933	1934	1935	1936	1937	1938	1939
wheat	2.75	6.38	7.21	7.76	6.74	7.71	6.51	5.45	4.31
rye	7.25	3.20	4.42	3.13	4.74	3.72	4.57	5.25	5.21
oats	3.50	3.65	3.01	1.62	1.52	5.20	2.94	3.25	3.87
barley	—	—	—	1.55	2.61	0.80	1.46	2.03	2.68
potatoes	9.—	9.04	7.91	8.28	7.40	4.94	7.20	6.99	6.65
total/ha	22.50	22.27	22.55	22.34	23.01	22.37	22.68	22.97	22.72
TOTAL INCOME IN GUILDERS OF THE SAME ACREAGE									
wheat	746	1781	2675	3241	2229	1997	1824	1650	1491
rye	1163	426	1107	1234	1127	828	961	1218	1742
oats	674	760	602	441	376	1613	633	951	1365
barley	—	—	—	407	652	189	350	447	833
potatoes	3423	3040	2972	4027	3375	1873	2960	3049	3686
total/Fls	6007	6007	7356	9350	7759	6500	6728	7315	9117
FARM 3									
wheat	1.66	1.65	6.08	5.25	4.98	4.11	1.38	2.29	4.85
rye	3.55	1.93	1.70	4.60	5.35	4.44	4.23	6.18	3.77
oats	3.47	4.17	1.98	0.88	1.50	4.30	6.79	4.57	4.75
barley	0.71	0.94	0.34	0.55	—	—	—	—	—
potatoes	7.36	8.74	7.03	6.10	5.90	3.76	5.79	5.68	5.25
total/ha	16.75	17.43	17.13	17.38	17.73	16.61	18.19	18.72	18.60
FARM 6									
wheat	306	524	2034	2041	1566	853	297	818	1404
rye	645	229	442	1118	997	1106	866	1431	1280
oats	703	574	386	186	374	1077	1546	1110	1500
barley	133	102	72	114	—	—	—	—	—
potatoes	2506	2389	2604	2944	2444	1434	2080	2233	2436
total/Fls	4293	3818	5538	6403	5381	4470	4789	5592	6620
FARM 7									
wheat	2.—	3.50	4.12	4.15	4.05	4.25	2.82	2.90	3.81
rye	2.25	1.—	1.75	1.15	2.75	2.15	2.25	2.52	1.05
oats	1.—	0.75	1.—	1.60	0.32	1.27	2.20	2.19	2.50
barley	0.62	0.50	—	—	—	—	—	—	—
potatoes	4.—	5.25	4.13	4.10	4.—	2.70	3.85	3.67	3.65
total/ha	9.87	11.—	11.—	11.—	11.12	10.37	11.12	11.28	11.01
FARM 6									
wheat	515	712	1353	1277	1112	1027	634	950	1155
rye	336	126	358	381	703	565	403	434	359
oats	183	153	158	369	95	329	537	603	973
barley	98	40	—	—	—	—	—	—	—
potatoes	1650	1690	1389	1773	1467	957	1524	1683	1729
total/Fls	2782	2712	3258	3800	3377	2877	3098	3670	4216
FARM 7									
wheat	3.75	7.58	9.59	9.53	9.56	9.57	5.90	6.18	9.25
rye	4.50	—	3.51	5.30	5.95	5.50	5.85	7.23	7.08
oats	3.65	3.27	5.54	5.25	4.84	7.36	9.19	5.61	8.43
barley	2.50	2.35	—	—	—	—	—	2.38	2.17
potatoes	8.—	8.88	10.77	9.33	9.20	6.20	8.72	9.04	15.57
total/ha	22.40	22.35	29.41	29.41	29.55	28.63	29.66	30.44	42.50

	1931	1932	1933	1934	1935	1936	1937	1938	1939
wheat	1329	2496	3320	4082	3063	2536	1114	2242	2713
rye	673	—	860	1462	1350	1460	1403	1687	3178
oats	530	415	1115	1290	1279	2157	2228	1662	3189
barley	422	266	—	—	—	—	—	727	1068
potatoes	3043	2841	3703	4667	4173	2364	3405	3992	6331
total/Fls	5997	6018	8998	11501	9865	8517	8148	10310	16479

FARM 9

wheat	1.25	2.72	4.37	3.73	2.97	5.35	2.65	1.22	2.—
rye	2.75	1.70	2.62	3.05	2.77	2.15	2.75	4.60	4.—
oats	2.—	2.45	1.40	1.75	2.95	2.05	2.95	2.75	2.35
barley	—	—	—	0.32	0.58	—	—	—	0.55
potatoes	4.50	6.25	4.60	4.02	4.20	3.15	4.50	4.47	4.15
total/ha	10.50	13.12	12.99	12.87	13.47	12.70	12.85	13.04	13.05
wheat	208	726	1317	1221	889	1049	561	344	548
rye	420	246	538	823	678	470	443	1051	1176
oats	373	349	195	423	687	570	613	654	843
barley	—	—	—	81	190	—	—	—	146
potatoes	1680	2052	1512	1853	1767	1025	1730	1883	1929
total/Fls	2681	3373	3562	4401	4211	3114	3347	3932	4642

FARM 10

wheat	10.77	15.20	12.20	10.92	12.50	12.08	6.50	9.46	12.08
rye	7.88	3.62	4.78	6.48	6.32	5.90	5.13	9.45	6.41
oats	4.37	0.75	1.22	2.40	4.23	8.25	10.84	6.05	7.53
barley	—	—	—	2.58	1.—	1.33	2.06	1.21	—
potatoes	13.61	15.99	13.76	13.—	12.—	7.90	11.08	11.09	10.69
total/ha	36.63	35.56	31.96	35.38	36.05	35.46	35.61	37.26	36.71
wheat	3065	4216	4295	3341	4104	2437	1272	2687	3590
rye	1350	450	1457	1849	1720	1536	1161	2358	2110
oats	943	137	266	574	1485	2691	2936	2013	2593
barley	—	—	—	533	238	326	500	337	—
potatoes	4890	4947	4766	6121	5083	3125	4050	4693	4561
total/Fls	10248	9750	10784	12418	12630	10115	9910	12088	12854

From the figures including the averages for 1940, we can see that the accuracy has suffered considerably from war-influences, amongst which we are ready to accept the black market as one of the features. If we refer in this respect to the average figures for 1939 and 1940 for rye and potatoes, we will note substantial falls of the average output during the course of one year. But, next to that, we have been informed that in 1940 rye had suffered considerably from frost, potatoes mainly from drought, in particular in the peat-colonies. In any case it was of no interest to produce figures of later dates than 1940, as from that year also lack of sufficient and good fertilizers, for instance, will have its influence.

The second table of figures does not give all the farms, but simply some of the typical ones that are picked out. In this relation we refer to farm No. 7. The acreage covered with the five crops during 1931, was 22.4 ha. Only 9 years later, the acreage covered with the same crops, amounted to nearly the double of the 1931 figure. This may be because a certain lot of ha were bought in the meantime. The actual reason is not to extract from these figures only, but there may be also this reason, namely the fact, that in particular the growth of potatoes has been increased so much, as potatoes are a typical production for the starch-industry which industry is well represented in those peat colonies.

If we now compare the figures obtained by reducing the averages of the yields by the deductible franchise, with the figures (also averages) of the corresponding farms, we can see whether there have been losses during one particular year for one particular farm.

But first we have to make *a compromise for the following*, before exposing our further considerations to the reader.

We have introduced as a matter of information a number of statistical figures. Now we want to compare the yearly averages of one special year with the total average of a series of years. For instance; the yearly average of 1934, with the total average of the period of nine years, 1931—1939. However, if we compute the total average of a series of consecutive years, we actually are not allowed to compare that total average with the yearly averages (each yearly average separately) from the same series, as strictly speaking that yearly average belongs to another series of nine consecutive ears. In this case the two series are overlapping each other.

Taking an example, we have stated that there are claims (according) to our total average 1931-1939, for wheat, in 1936, 1937 and 1931 on the farms Nos. 3, 7 and 9. We have taken the equation-figure of 1931 up to 1939 (inclusive) and a franchise of 25 %, i.e. 31 for farm No. 3, 32 for farm No. 7 and 28 for farm No. 9.

However, if the calculation has to be perfectly correct we should have been obliged to take the year's averages in the

cases for farm No. 3, from 1926 up to 1935 (inclusive); for farm No. 7, from 1927 up to 1936 and for farm No. 9, from 1921 until 1929. But, as we only want to give a suggestion of these computed averages and the way to handle them without further entering into the absolute correctness of those particular figures, we took the liberty to use these equational figures instead of digging into the accurate historic figures.

In other words, the compromise is, that we, being aware of the fact, that the equational figures are not correct, nevertheless used those, as quantities without other pretension, as being useful for this purpose to get an impression of the extent of those figures and the way to handle them, if the practice is making an appeal on this suggestion of crop-insurance in general.

So, for future calculations to be made in the course of this publication, the above mentioned compromise has to be taken into account.

Now let us take the following example:

Farm No. 9 had in 1931 an average wheat production of 22 hl/ha. The average wheat production, exclusive 1940, = 36.8 (rounded off = 37) hl/ha. In case the franchise would have been 25 %, there would have been a claim of 6 hl/ha (again it should be emphasized, that this franchise is only taken because of its easy figuring).

If we place these various franchises underneath each other, we read:

25 % franchise — claim of 6 hl/ha	} payable for 50 %.
20 % dito — claim of 8 hl/ha	
15 % dito — claim of 9 hl/ha	

Farm No. 7 had during 1931 an average oats production of 44 hl/ha. The average production, exclusive 1940, appears to be 78 hl/ha. Here the same table for different franchises runs as follows:

25 % franchise — claim of 14 hl/ha	} payable for 50 %.
20 % franchise — claim of 18 hl/ha	
15 % franchise — claim of 23 hl/ha	

By doing so we can get a general impression of the loss-experience.

As said above, the figures of these two tables, relating to the same group of 10 farms, are interesting, but certainly do not form an estimate of the actual position. They are illustrative and have no other pretention than giving an insight of how and on what we have to base the loss-experience in crop-insurance. It will be clear, *that knowing this loss-experience, we are very near to being able to calculate the premium-rate.* However, investigation on a larger scale should take place before being able to come to full information of this matter.

We should like to enter a little further into the problems of this loss-experience.

A further consideration of the figures as given on the above quoted tables, gives the following manifestations:

WHEAT; taking a franchise of 25 %, the farms Nos. 3, 7 and 9 have claims, respectively in 1936, 1937 and 1931. According to the price as given (this is an average price obtained during the current year) the total of these claims amounts to Fls. 123.61. The total amount of wheat produced by these 10 farms, could be valued at Fls. 150.400.—. (1940 has not been incorporated in the figures for this and following calculations.) Taking into account that 50 % of the claims are compensated, this figure of Fls. 123.61 represents a loss-percentage of $0.04 \% = 40$ cents per mille.

Exactly in the same way one can compute the loss-percentage in case this franchise is 20 %. The loss-percentage will then prove to be 0.13 %, while it will come to 0.33 % in case of a franchise of 15 %. Theoretically this franchise can be reduced to any extent, however, as we have seen, the reduction of the franchise from 25 to 15 %, gives an increase in loss-percentage of almost 9 times the amount (from 0.04 to 0.33 %). We are certain that it will prove, that in the main the loss-percentage with a franchise of 5 % or less (which is not advisable), will give indication of a premium-rate which become far too expensive for the costs of exploitation of the farms.

As the usual fluctuations in yields move between 10 to 30 %, this franchise of 15 % will be about the limit of the un-insurable part of the total crop.

Besides, as smaller franchise might for certain growths appear to clash with the principles of law, providing the un-

foreseenness of the losses and therefore we prefer to consider this 15 % franchise as a good and correct indication for this particular purpose. If practical experience has shown that for special growths this franchise can be reduced, there is not a single reason why such should not be executed. We have never to lose sight of the fact, that crop-insurance must give economic cover to the farmer, giving him financial support and power of resistance in all those cases, in which Nature is threatening him with blows of smaller or greater weight.

RYE. Exactly the same calculation as for wheat, can be made for rye. The outcome of the 10 farms under consideration, appears to be very satisfactory indeed. The total value "insured" amounted to Fls. 79.060.—.

25 % franchise	— claim —	} Here the 50 % regulation is taken into account.
20 % dito	— claim gives a loss-percentage of 0.035	
15 % dito	— loss-percentage 0.13 %	

Now in this case there might be reason to try a franchise of 10 % for a new period.

OATS. Total value "insured" is Fls. 15.580.—.

25 % franchise	— loss-percentage	0.09 %
20 % dito	— dito	0.31 %
15 % dito	— dito	0.56 %

BARLEY. Total value "insured" is Fls. 55.110.—.

25 % franchise	— loss-percentage	0.14 %	} Here the fluctuations in the loss-percentages are smaller than with the other cereals, due to greater fluctuations in yields.
20 % dito	— dito	0.26 %	
15 % dito	— dito	0.51 %	

POTATOES. Total value "insured" is Fls. 276.200.—.

25 % franchise	— loss-percentage	0.035 %
20 % dito	— dito	0.203 %
15 % dito	— dito	0.406 %

(If we write here "total value insured" we do so in order to give an idea what it would be like, if indeed these ten farms had taken out crop-insurances on their growths. In fact no such an insurance has been taken out.)

Drawing the reader's attention in particular to the figures for the potatoes, we can state, that it appeared from our information that the losses for this growth have specially fallen in the first two years of these statistics. So it might be possible (for the sake of good order it should be made clear here) that some incorrectness in the statistical figures has accounted for this.

The picture which is given us from a large farm industry in one of our Southern provinces, shows for *wheat*, during the period 1931—1939 (inclusive), losses during 1931 only. The average production per ha in this period is 3728 kg (diagram I).

With a franchise of 25 % this gives an insurable production of 2696 kg/ha.

	kg/ha		kg/ha
Franchise 25 %	— 2696	The actual production proved to be in 1931: 2688 kg/ha	loss (1931) — 8
dito 20 %	— 2982		dito — 294
dito 15 %	— 3169		dito — 481
dito 10 %	— 3355		dito — 667

Taking the franchise of 10 %, such will show a loss-percentage of 25 % compared with the actual production and of almost 20 % against the insurable production for this particular year of 1931.

Barley on the same farm, did give a loss at 1933 during the same period, but only with a franchise of 10 % (diagram II).

Oats had losses in 1931 and 1936. The average production for oats lies round and about 4164 kg/ha. In 1931 this average was 3226 kg/ha. With a franchise of 10 % there would have been a loss for the insurer of 522 kg/ha. In 1936 the average production was 3706 kg/ha. At a franchise of 10 % claim would have been 42 kg/ha (diagram III).

Potatoes had no claims at all (diagram IV).

This large farm industry consists of several farms, figures of which have been given to us in one total crop and so averaged.

As there has been the request not to give special publication to these more or less confidentially given figures, we regret not to be able to disclose further details. The figures as given here represent an extremely well cultivated part of this country.

During 1943, a heavy toll had to be paid by the owners due to a considerable dike-breach, consequences of which would have been covered under our suggested crop-policy, as far as the growths are concerned. Incidentally the large property is situated just behind the sea-dikes and the salt water which inundated the fields, caused substantial damage to the soil itself, besides the costs involved to repair the dike.

We have made some diagrams to show the developments in the management of the farms as a whole.

Legenda for the diagrams:

- un-interrupted line — production/ha/year
- dotted line — proceeds/ha/in guilders
- dotted-pointed line — total acreage
- horizontal lines — the average line and the franchises for 10, 15 and 20 %

There is another big farm industry which furnished us with some valuable figures. The figures are shown below.

There are in fact three farms, figures of which will be given separately, while the diagrams, Nos. V/VII, represent the three farms together.

SUMMER BARLEY

YEAR	FARM I		FARM II		FARM III	
	acreage in ha.	prod. in kg/ha	acreage in ha.	prod. in kg/ha	acreage in ha	production in kg/ha
1929....	19.92	3738	11.22	4340	12.45	4550
1930....	—	—	12.27	3220	19.18	3990
1931....	10.65	3150	6.06	3710	23.46	3360
1932....	—	—	8.80	3850	5.30	3780
1933....	3.03	4410	—	—	5.31	4130
1934....	4.01	4340	11.25	4550	18.57	4550
1935....	—	—	—	—	9.28	3640
1936....	8.45	3668	—	—	12.95	3731
1937....	9.83	3015	5.86	3607	9.77	4061
1938....	5.30	3764	7.43	3800	10.64	4000
1939....	11.32	4932	9.70	4350	16.40	5079
		31016		31427		44871

Average production for Farm I	3877 kg/ha
Average production for Farm II	3928 kg/ha
Average production for Farm III	4487 kg/ha

Farm I; in case of a franchise of 15 %, the insurable production should be 3295 kg/ha, which indicates claims in 1931 and 1937.

Farm II; franchise 15 % — insurable production of 3339 kg/ha which gives a claim in 1930.

Farm III; franchise 15 % — insurable production of 3814 kg/ha, claims arising in 1931, 1932, 1935 and 1936.

These three farms lie next to each other and therefore may be considered in our diagrams as one single, big farm industry.

It might be useful to mention some more figures of this last group of farms. Potatoes and winterwheat will have our special attention now.

POTATOES

YEAR	FARM I		FARM II		FARM III	
	acreage in ha	prod. in kg/ha	acreage in ha	prod. in kg/ha	acreage in ha	prod. in kg/ha
1929....	13.74	23010	31.34	20230	14.66	28770
1930....	9.35	21280	18.91	18620	6.06	12670
1931....	17.19	24360	23.12	22960	6.65	15260
1932....	29.94	24640	27.10	21490	9.27	19110
1933....	27.22	21910	23.32	17780	12.79	15820
1934....	20.05	23450	28.23	24290	13.34	17780
1935....	21.57	19180	29.85	15820	13.57	20370
1936....	28.69	25560	25.90	22977	12.42	21030
1937....	23.65	23121	32.40	15628	17.98	22043
1938....	28.46	30216	25.54	26480	15.71	27506

Average production/ha for Farm I	23672 kg
Average production/ha for Farm II	20648 kg
Average production/ha for Farm III	20036 kg

Farm I; franchise 15 % — insurable production/ha is 20121 kg. The only claim would have been in 1935.

Farm II; franchise 15 % — insurable production/ha is 17551 kg. There would have been claims in 1935 and 1937.

Farm III; franchise 15 % — insurable production/ha is 17031 kg. In three years, claims would have been ascertained, 1930, 1931 and 1933.

WINTERWHEAT

YEAR	FARM I		FARM II		FARM III	
	acreage in ha	prod. in kg/ha	acreage in ha	prod. in kg/ha	acreage in ha	prod. in kg/ha
1929....	29.92	4350	30.34	4575	21.17	4800
1930....	31.99	2775	22.30	3000	32.68	3075
1931....	32.61	3525	28.90	3450	19.05	4425
1932....	54.60	3600	49.44	3900	50.27	3675
1933....	53.07	3825	57.80	4200	53.64	3600
1934....	66.74	4350	56.51	4500	55.40	4575
1935....	66.82	3750	58.01	3600	57.98	3750
1936....	56.66	3453	63.49	3252	62.23	4027
1937....	64.65	3131	53.65	3546	56.84	3494
1938....	54.89	3805	56.10	5310	64.10	4455
Average production/ha for Farm I					3656	kg
Average production/ha for Farm II					3933	kg
Average production/ha for Farm III					3988	kg

Farm I; franchise 15 % gives an insurable production/ha of 3108 kg, which shows a loss in 1930.

Farm II; franchise 15 % — insurable production of 3343 kg/ha. Losses would have been sustained in 1930 and 1936.

Farm III; franchise 15 % — insurable production of 3390 kg/ha. Claims would have arisen in 1930 only.

In the same way as previously illustrated, the loss-percentages can be calculated for the separate farms, giving indication for the premium-rates.

Returning to our diagrams of both the last two mentioned farm-industries, we may not be able to analyse precisely the figures which form the basis of the construction of those diagrams, but, for instance the lines for the average-productions/ha show to be rather regular, if we compare these lines with the lines for a franchise of for instance 10 %. The depressions here and there are due to circumstances of a natural kind for which the insurance scheme under our present attention, is designed.

Generally speaking, this regularity as well as the spreading of the risks over the whole country, are very favourable features for any eventual enterprise. But then there are the depressions in the total output per farm (not to be mixed up with our diagrams here, which are collective for all farms) as there are the fluctuations in prices, the long and short waves as mentioned before. These depressions in prices of the cereals

and other agricultural products, have directed the course of our design as far as the question was concerned, *whether or not to insure against fixed prices*. As explicitly stated, we prefer the system of the coinciding establishment of the sum insured and claims, after threshing. See our note from the General Conclusion, Ao. 1942, referring to the U. S. A. scheme (our page 54).

The dotted line in our diagrams represents the financial proceeds of the several growths per ha (exclusive straw). Entirely according to expectations, this line follows the course of what we have seen before in respect of the international crisis of 1929. The support of the Government given in 1933 is evident, but we should not forget, that the "quality" of the products is discounted in the diagrams.

The dotted-pointed line of the diagrams, shows the total acreage sown. These lines, the one of the total acreage and the one, representing the proceeds/ha of this diagram, strike us for the following reasons. It is the elasticity of the agricultural industry in this particular case which is exhibited here. In some cases however, the effect of the high prices has just passed by (1932), before one has got the opportunity to obtain the greatest profit (see diagram V).

Now this big farm-industry is managed according to real industrial principles, apparently. In other words, we should never compare this group of farms with the ordinary ones, the ones of the size somewhere round about 20 to 60 ha.

Whatever happens in world economy, it will be the definite task of every Government to give protection to the agricultural interests of the homeland.¹⁾ Except for cases of an autarchic regime, which regime can be considered as a form of protection against depressive tendencies.

VERRIJN STUART writes:

"...in particular in the European countries the conservation of the agricultural population is of the highest value; that is why everything is done to preserve that part of the population and to give it a deserving existence..." (see our page 27).

(we may refer again to the publication of the "Volkswirt", see our page 25).

¹⁾ VERRIJN STUART; page 130.

In other words, the Government of a country is in principle not only prepared, but indeed, bound to give every support needed by agricultural life, in case external influences or internal circumstances (the exogene versus endogene factors) make such support a necessity. If that same Government, according to its knowledge and experience, being fully aware of the periodical returning of crises (those cycles of conjuncture, see VERRIJN STUART in his historical review of the conjuncture, chapter II) realises what the U. S. A. Government realised, that it is much cheaper to spread the expenses of the financial support per year, then we would have the happy solution of an everlasting financial reserve from which the usual claims can be paid, and from which in darker times of crop-failures or economic disaster, the worst distress can be relieved by means of that reserve. By putting it in this way, we can imagine the possibility of Governmental support to an eventual enterprise by the future insurers.

With reference to the above mentioned crises, we note that these crises are in most cases "price-crises". The form of insurance suggested here, does not intend to give coverage against the quality- or price-differences (see also the considerations in the summary of the Bulletin 1043), but against quantities only. In other words, this insurance does not give any support in case of falling market-prices.

However, if a price-crisis harasses the agricultural world, a good working crop-insurance may safeguard the already molested, agricultural income against the misfortunes of the crops as these are exposed to Nature. The significance of the insurance can only be felt as of more and general importance in such instances, in particular if one chooses the franchise and the loss-settlement-percentage in such a way that the assured can have the greatest profit from it.

One might as well make the remark, that now and again two things apparently are mixed up, the insurance cover given by the private insurer and the cover given by the Government. Well, actually it does not make much difference who or what is giving such insurance cover. The main principle is to secure the agricultural industry as well as possible, to serve its purposes

in every thinkable way. If it proves to be the private insurer who gives the cover, the latter undoubtedly will be grateful for Governmental assistance in respect of his re-insurance. If it is the Government acting as insurer, this Government might need the help of private organisations in order to propagate this new Governmental step and keep the costs as low as possible. We may leave this matter now, in order to return to some points of interest, extracted from chapters we have been considering previously.

On page 30 of our publication, we wrote that it might be useful to exclude from our design (some of it for psychological reasons) all those forms of insurance for which already cover is obtainable, often from mutual sources. There is for instance the *hail-insurance*, which is rather well introduced in this country. Many companies, most of which are mutuals (see Dutch Yearbook for Insurance), are concerned in this business. However, desirable as it may seem to stick to that principle, it will undoubtedly prove to be difficult to hang on to it. It will be no easy problem to compute a premium-rate for crop-insurance from which the hail-cover is eliminated. In the figures we have given, damage by hail is included. In other words, if we note a claim during one special year, let us say for wheat, such means that the reduced output for this wheat in that current year might have been effected by hail. There are no separate figures available. So, *as our design is based upon annual yield-figures and an annual average per growth is computed, it will be a condition of this design that the average be calculated on a basis of the actual annual yield-figures, in which losses due to hail-fall are already discounted.*

If we do not stick to that principle, there should be a separate calculation made, besides providing for the actual yield-figures, in order to state the losses due to perils insured elsewhere (see also our quotation from the Bulletin 1043, on our page 24). This will cause only confusion and mistakes. It can be illustrated as follow. For instance, there is a separate hail-insurance and therefore hail-damage is purposely excluded from our crop-insurance policy. There occurs a claim under the hail-policy. The assessor of the Hail Insurance Company settles the damage for 5 %. This means that there appears at the very moment

this surveyor has ascertained the loss, that this loss is 5 %, over and above the eventual franchise, which no doubt is provided for by the Company's policy. There is at a certain moment an agreement between the policy holder (i. e. farmer) and the Company on the terms of the 5 % loss-settlement. But actually there is not a damage of 5 %, but 5 % plus the percentage of the franchise. So the total damage may be for instance 10 %, if the franchise is 5 % as well. This, if the franchise is on the terms of "free-from-5 %"; in case the franchise is "free-under-5 %" the total claim of 10 % has to be paid by the Company in full. Imagine however, that the total claim has not exceeded 4 %. No indemnification would have been granted, but nevertheless the actual yield-figure may be influenced to a smaller or greater extent as a result of this hail-fall, the extent of which thus being somewhere round about 4 %.

One may say that the growth can recover considerably before being harvested. This might be true, but the fact that farmers insure their crops against hail-fall, proves that they fear the consequences thereof. Besides, the growth may as well not recover, and the full weight of the hail-fall will be demonstrated in the final yield-figure.

We entered into these details merely, to draw the attention to the problems which will arise, if special hazards are eliminated from our scheme. *Therefore it is essential, if crop-insurance is to be launched, that it must be launched as an all-risks insurance, a cover against all the risks due to causes of Nature.*

So, contrary to our suggestions made in preliminary plans (see our page 30) we prefer to avoid the risk of difficulties, mistakes, etc. and suggest to include all those perils like hail, storm, etc. which could be insured elsewhere.

It is also due to the construction of our design, with its claim-settlement at the end of harvest time, after the threshing, and with its determination of the insurable value according to the total output, and the current market-price at the same moment as the before mentioned settlement of loss, that we are simply forced in the direction of leaving the principles as sketched above, in spite of the knowledge that we might interfere with the private interests of a certain group of farmers, concerned in their local insurance companies. This attitude of ours cuts out the necessity for the assured to take an insurance

cover against the consequences of hail-fall. The results are manifested in his final yield-figures. If not, there has never been an actual claim and thus claiming a loss becomes immoral.

It may be useful just to underline once again the following matter. The policy should give insurance cover against all risks not excluded by the interpretation of section 246 of our Commercial Code and within the character of an agricultural insurance. By giving such cover, one can achieve the construction of a policy which gives protection against all external risks, influences of which will manifest themselves in the ultimate yield-figures. All these figures will promptly be discounted in the final calculations. We understand by the expression "all-risks" all those risks the nature of which can be compared with those like storm, hail, drought, diseases (known and unknown), inundation, caterpillar-plagues, etc.

No insurance cover can be given against the fluctuations of the marketprice (see our page 53, quotation from "Crop Insurance" and from "Aufbau und Durchführung" by Dr. ROMMEL).

We have said this before and may remind the discriminate reader of the words of DORHOUT MEES as quoted on our page 8; "In theory a merchant may want to be insured against the loss of profit due to a fall of the marketprice. It will however be obvious, that in doing so he would abdicate as a merchant on behalf of his insurer." The same position we have here. But there may be some consolation for all those, who feel disappointed in our scheme on that particular point. Without pretending to be perfectly correct, we dare launch the assertion that, if agricultural prices fall so considerably, costs of living will fall as well, and the standard of living as a whole will come down. If the costs for the farmers do not fall at the same pace as the prices of the agricultural products, the Government will come to the rescue of this vulnerable part of the population and give the farmer the protection he so badly needs (see our quotation from VERRIJN STUART, our page 27).

In normal times we are prepared to suggest that the prices of the Rotterdam and Groningen markets, as published in the periodicals, as well as the index-prices issued by the Department

of Agriculture, should give a sound indication of the price basis on which the losses under a crop-insurance policy, can be settled at the time of their ascertainment.

On our page 30 we wrote that it was essential to start an enterprise of an all-risks crop-insurance, in more peaceful times. However, such is not strictly necessary, if the planning insurer is prepared to take the risks unwritten in the policy. We are of opinion that there are typical risks due to war-time conditions. Quite true, that eventual reductions in the production, due to those indicated war-time conditions, are and will be accounted for in the calculations for the coming year, but here, next to human morality, also the reduced capacity of the soil plays its part. No artificial fertilizers are available in amounts wanted by the farmer, even not sufficient hands to do the work.

That is the reason why we suggested starting a business like this in peace-time. Peace-time means in this respect, a time not effected either by conditions of war, or by deeply rooted crises. Such a business needs, like the plants in the fields, before yielding their crops, a time of quietness, to grow, to strengthen and to flower, in order to be able after that, to develop their full capacity and ability.

The discriminate reader may have noted, that we did not pay much attention to the, for every assured, so essential question of the *premium*.

Now and again we gave indications how these premium-rates are to be computed (from the loss-experience) but we prefer to cut it out of this conception for special purposes. In general, rates are either a matter of specific technical calculation (as in life-insurance and in fire-insurance as far as industrial risks are concerned) or, a matter of feeling (as in many cases of marine-insurance). Here we consider rates typically as an affair of mathematical calculation, see our pages 104 and following. The rates should be computed per farm individually, and so the entire scheme can in fact, be based upon the mathematical certainties of the ascertained amounts of outputs, as proved by the assured. It is simply a matter of number of assured, with correct figures, to obtain

a clear view in the general rating for the several crops. The loss-percentage gives the indication for the proportion of the rates.

During the first years of operation, these rates have to be appraised, due to lack of correct information; but after a few years this appraisal can be dropped in order to make room for a rate, based on historic figures of the farm concerned.

By rating the farms individually, the possibility is avoided, that only hazardous risks are offered to the insurer (voluntary-). The individual farm-rating gives for well managed farms on good and fertile soil, small rates. For poorly managed farms and in general, for less attractive risks, higher rates shall have to be paid. All this is bound to the experience which will be proved by the statistical figures of each farm. These figures will be filed by the insurer so that no misunderstanding about them can take place. They will represent a valuable source of information for many purposes (see also our page 37).

As these rates are based on actual definite figures, there will be no miscalculation possible. Each farmer has his own historic figures, his own rate, and he need not bother about the premium-rates his neighbours have to pay, as the rates are in any case different. This he knows in advance. If any mistake is made, or any swindle exercised, this will promptly be discounted in the computation of average-figures for the coming year, which is the result of individual farm-rating.

However, the matter is quite technical and we trust we have told enough about it to give everybody an idea about the ascertainment of the rates. There are no secrets, anyone can calculate approximately for himself which rate he will have to pay, considering his loss-percentage for the consecutive crops.

Different from the question of premiums is the ascertainment of the *claims*, for the volutary insurer.

The losses can be computed from the total of the threshing-certificates. We have focussed the attention on this subject before, but still live in the uncertainty as to whether no better solution of this essential point is to be found. Information from farmers, indicated that if the scheme should be put into action, and assuming there would be, also for the first years after the war, a certain Governmental control, the farmers

evidently would have got used to these certificates and have no objections in asking the engineer of the threshing machine to deliver these certificates also in future, in order to prove the total output of production. If private machines are used, another way of proving the output has to be found. Swindle might occur here, we already agreed upon that. It will however, not be to the benefit of the assured as we concluded. In case the historical figures of the last 5 years are taken into account to compute the averages for the coming season, during those 5 years the swindle will be discounted in this average, bringing this last figure down, which means that only in case of substantial new losses claims can be lodged against the insurer.

The adjustment of losses which happens to be executed in the U. S. A. by local people, was felt less desirable by us (see our page 64). The Japanese scheme (see our page 75), where not the individual farmer, but the agricultural co-operative society figures as the assured, may meet with the solution of that problem. Here we can imagine, that the official of the society, represents the one who shall deal with the computation of the actual loss. With regard to our objections against the settlement of claims by local people, we quite appreciate the difference in mentality between the farmers in this country and the peasants of the U. S. A. or Japan.

We may be too pessimistic on this point, but we certainly are more prepared to accept a suggestion to have claims adjusted by the staff of a local insurance office, provided this office has been switched into execution by the launching of this scheme, than to the acceptance of an adjustment by some farmer-colleague, who by doing so may interfere with the interests and private dispositions of the assured.

Then there is the matter of the deductible *franchise and the 50 % claim-settlement*.

The franchise is new in the series of designs already brought to our attention. Neither in the U. S. A. nor in the Japanese scheme have we found indication of a franchise. Neither the U. S. S. R. scheme of the "Gostrach" gives such indication.

And we dare say, fortunately not, because we are struck by the comparatively high rating. For instance (see Dr. ROMMEL, page 31) we read that hail insurance rates in Russia are some-

where round about 1.4 % as an average, while the rate for insurance against crop-failure amounts to something round about 3.45 %. If we find in our figures as given before, with a franchise of 15 % and the 50 % claims settlement, a loss-percentage of 0.33 % for wheat, the rate for this insurance will be in this same order.

Here we may refer to this 50 % claim-settlement agreement. In the U. S. A. scheme, we have seen that there is cover against 75 or 50 %, according to the wishes of the assured. This is the same principle as expressed by our suggestion, with this difference that of each claim in the U. S. A. the assured is his own insurer for either 25 or 50 %. This may look more acceptable for the assured, indeed it is, in a certain way. But it is no insurance, as insurance principles are based on the idea that one cannot insure such a matter (= risk) which is bound to give losses. Again, the reader is perfectly right if he objects, that not every crop will show losses. We quite agree, but every man knows, that his crop this year is different from the next year. It is exactly that difference which is, according to law, uninsurable. *Therefore we simply must introduce the idea of a franchise.* Next to that and with regard to the 50 % claims-settlement principle, we are willing not to be too conservative about it. *If experience gained from the practice, proves that this principle is not in favour with the assured,* as far as the percentage for settling claims is concerned, *we are ready to suggest that this percentage be diminished,* and reduced to any scale up to 10 %, so 90 % reimbursement.

A special rating will be needed by then. *The principle itself is observed as an absolute essential.* We have said so before, that if the point was dropped, the farmer would in fact lose his full interest in his farm, and that would be catastrophic for the high standard of Dutch agriculture. If any choice was left to us, we would rather drop the franchise and work on the terms of the American scheme, even with the knowledge, that we are interfering with the basic principles of insurance laws. If the American Author of "Crop Insurance" writes that trials previously given to the business have failed, it was also due to this consideration, which has katalysed the failure. The main reason, however, in that particular case, was the fact that all-risks cover was given, including price-fall. We consider it a happy

solution to determine the insurable value, after all particulars of the crops themselves are brought to the knowledge of assured and insurer. Such arrangement gives a fair valuation of the rights for both parties in relation to the insurance contract.

It is difficult to discuss in our concluding chapter the question of compulsion in crop-insurance. We cannot clearly oversee which consequences this would have for our country. Certainly we are not propagating the idea. Living in a freedom-loving country, we want freedom in every decision which falls within the scope of our personal interests. When Dr. ROMMEL remarks in his conclusions, that obligatory insurance deprives the citizen of freedom in decision, there is something in that principle we refuse to favour. Indeed, Dr. ROMMEL himself does not fully sympathise with the idea apparently. He writes that this fact represents a drawback to the system. However, in some special instances, it might be of great importance to overcome this feeling against it. A condition therefore must be, that public interest reached such a stage, that the official introduction of the compulsion is fully justified. But then again, we cannot imagine an insurance compulsion of this kind, without close participation of the Government. And that is why we prefer to keep to the safe side in this respect and leave the matter to the unknown future.

Whether this scheme for crop-insurance will be a success or not after being put into practice on terms as expressed before, will for the first few years remain obscure. The actual insurer shall have to go through lots of work first, in order to obtain a good insight into the conditions ruling the rates on the one side and the claims on the other. There is however, a good chance and good reason to believe, that this future will prove, after launching the scheme, that the prospecti and application-forms for crop-insurance will find their way to the writing desks of the farmer's home quarters.

The principle idea to give security against loss of income, is in accordance with the conditions of insurance-law. It is an insurable interest, provided that the cause of this misfortune falls within the spirit of section 246 of the Commercial Code.

Experience only, with this class of business has to prove to which extent this security can be given, depending largely on the loss-experience on the one hand, and on the other hand, on the amount of premium to be collected within the borders of the agricultural-economical responsibility.

We are quite aware of the fact, that the information given in this concluding chapter is far from complete. We might have given more figures, for instance, more deductions, more analysis and more construction. But there were limitations to which we were bound. The subject is an extremely large one.

A full insight was get full insight hampered by the circumstances of war. We have asked many more people to give us informations in figures, but they have been forced to disappoint us, due to lack of people to compile these figures. So, after the war, one of the first things to do, is to collect as much information as possible. It is those figures which ultimately can give us the knowledge whether or not this form of insurance is worth giving a trial. But there we have landed on a spot, which actually lies outside the scope of this study. We have anxiously refrained, as far as justifiable, from dealing with business-like and technical matters. We have achieved a composition on broad lines, without going into details. Only the principles have been brought forward, with some suggestions and a certain amount of criticism on the designs of others. On the other hand, there has been recognition of the merits of foreign designs, perhaps not always in the way of praise, but certainly in a way of being happily surprised to have come across a plan with the same tendencies and purports as our own; all of them aiming at one target, to give more security to the farm-industry of their countries and our own.

Our design has to be placed in the hands of the future, to learn whether its form is a failure or will prove to be a success. Possibly some alterations will have to be made, some additional provisions added, some rates used with special flexibility.

Concluding, we dare state, that quite possibly a number of questions in our design remained open, unanswered. Lack of information is the only excuse we can bring forward. However, besides the new Farming Rent System and its rights of

continuation and remission, the Governmental support in times of depression, either by paying additional prices for the several crops, or by giving financial rewards for special cultivations, this insurance suggestion has no other pretension, than to bring to the general attention a subject which might be a contribution to a greater security of Farmers' Life and Industry, in order to preserve a strong and confident class of farmers, confident in the help which will and can be given in days of disaster, confident also, in the high quality of their own, very good earth.

RESUMÉ

Na een korte inleiding met betrekking tot een aantal essentiële artikelen uit het Wetboek van Koophandel, handelende over het verzekeringsrecht, teneinde eenig inzicht te verschaffen op dit terrein, volgen een drietal artikelen, eveneens uit het Wetboek van Koophandel, inzake de „verzekering tegen de gevaren waaraan de voortbrengselen van den landbouw te velde onderhevig zijn.”

Het hoofdstuk „Onderlinge Verzekering” wijdt beschouwingen aan de voor- en nadeelen van dezen, in den landbouw vertrouwden vorm van assurantie. Er wordt dezerzijds betoogd, dat de speculatieve verzekeringsvorm, d. w. z. de onderneming, werkende op basis van een uitgegeven aandeelenkapitaal en derhalve met het kennelijke doel „winst” te maken, de voorkeur verdient boven de onderlinge onderneming.

Vervolgens treft men een hoofdstuk aan behandelende de eigen suggesties met betrekking tot de oogstverzekering. Deze eerste suggesties zijn ruim genomen. In het slothoofdstuk wordt op dit geheel meer in concreto teruggekomen. Hier mogen de voornaamste punten uit deze eerste overwegingen genoemd worden.

Allereerst wordt vastgesteld, dat landbouwverzekering in den geest zooals hier gedacht, nieuw is voor ons land. Het is een kwestie van introductie en organisatie. Juridisch zijn geen bedenkingen tegen den vorm der verzekering aan te voeren. Evenmin behoeven beperkingen ten aanzien van de soort landbouwgewassen te worden voorgesteld. Wel is het van belang, dat indien een gewas verzekerd wordt, dit in zijn geheel geschiedt, dus niet slechts voor een gedeelte van het beteelde oppervlak per boerderij.

De opzet is die eener all-risks dekking, mits de schadeoorzaken buiten de menschelijke invloedssfeer gelegen zijn, m. a. w. indien van een onzeker voorval, als bij de Wet bedoeld, gesproken kan worden. De opzet dient voorts te geschieden in normale tijden, hetgeen wil zeggen, dat een periode van oorlog een ongunstig tijdstip is voor het lanceeren van het hier geschetste project.

De verzekering wordt aangegaan op basis van de gegevens

van een aanvraagformulier; als duur wordt voorgesteld, van 1 Mei tot direct na dorsching van het verzekerde gewas. Eenige theoretische voorbeelden illustreeren de bepaling van het te verwachten gemiddelde als uitgangspunt der verzekering. Indien voorop gesteld wordt, dat bij iedere vernieuwing der verzekeringsperiode dezelfde maateenheid wordt genomen, kan deze factor in de berekeningen geen rol spelen bij de bepaling van de te verwachten opbrengst in het komende jaar.

Voorgesteld wordt het aannemen van een franchise als onverzekerbaar percentage (gebruikelijke schommelingen in de jaaropbrengsten), terwijl bovendien de schade voor slechts een deel wordt vergoed, 50 % of meer, doch minder dan 100 %.

Ter bepaling van de opbrengsten wordt gedacht aan vaststelling op grond van de dorschbriefjes. (Er wordt uiteengezet, dat verzekerden geen belang kunnen hebben bij onjuiste opgaven.) Dit sluit in, dat de boerderijen ieder afzonderlijk op hun eigen merites kunnen worden beoordeeld. Ieder bedrijf heeft dus een eigen premiepercentage.

De waarde van het verzekerde gewas wordt bepaald na de dorsching. Dit geeft dan aan de basis voor het vaststellen der verzekerde som. De verzekerde kan dan in geval van schade, den prijs bedingen, welke op dat oogenblik aan de markt genoteerd wordt, terwijl de verzekerde som dienovereenkomstig uit genoemden prijs wordt berekend.

Ook de premiebetaling valt op dit zelfde oogenblik. Deze constructie, nl. het laten coïncideeren van de vaststelling van verzekerde som, premiebetaling en eventueele schadeuitkeering, is uiterst liberaal en wordt in het schadeverzekeringsbedrijf nog niet toegepast.

Een beschouwing van de artikelen uit het Pachtbesluit 1941, met betrekking tot de rechten van continuatie en remissie, wordt in het verband tot de oogstverzekering geleverd. Het recht van continuatie geeft zekerheid voor het gepachte bedrijf. Het recht van remissie opent perspectieven voor den pachter, doch tevens voor den verpachter, nl. dat diens pachter, op grond van de eventueel te scheppen mogelijkheid, welke de oogstverzekering kan bieden, slechts in zeer bijzondere gevallen zal grijpen naar het hem toegedachte remissie-recht. Deze rechtsvorm heeft als resultaat, dat de oogstverzekering daarmee gestimuleerd kan worden.

Na deze voorloopige overdenkingen inzake het verzekeren van gewassen te velde, worden beschouwingen gewijd aan de in de Vereenigde Staten van Noord-Amerika van regeeringszijde gelanceerde tarweverzekering. Het „Yearbook of Agriculture” 1940, met als ondertitel „Farmers in a changing World”, geeft o.m. een inzicht in den opzet van dezen zeer uitgebreiden verzekeringsvorm. Het sociale en economische element speelt bij de totstandkoming der verzekering een groote rol.

Het doel is eveneens assurantiedekking te verleen en tegen alle productiegevaaren.

In de jongste publicaties van het Amerikaansche Departement van Landbouw treft men aan, dat het ook hier inderdaad de bedoeling is, dekking te scheppen voor tal van gewassen. Men denkt niet alleen aan granen, doch tevens aan tabak, bosschen, aardappels, citrus, etc., terwijl de verzekering op katoen reeds van kracht is geworden. De principes zijn in menig opzicht congruent aan die, welke door ons werden genoemd. Als belangrijkste verschillen kunnen worden aangegeven: I. de mogelijkheid tot betaling der premies en schaden in natura; II. de verzekerde som in geld of in het aequivalent graan wordt vooraf vastgesteld; III. de verzekering dient aangegaan te worden vóór het uitzaaien van het gewas; IV. de premie moet terstond worden voldaan (in de latere publicaties, na 1940, wordt de mogelijkheid geschapen de premie na den oogst te voldoen, hetgeen dit Amerikaansche schema een stap nader brengt tot onze eigen suggesties).

Bij gebrek aan juiste cijfers voor de jaaropbrengsten, ging men vaak uit van de z.g. „key-farms”, vergelijkbare bedrijven. Deze gang van zaken zal ook in ons land eventueel gevolgd kunnen worden.

Het „all wheat” programma der Amerikanen was gericht op het vormen van een reserve in natura. De feiten wijzen echter uit, dat deze opzet het doel heeft gemist. Bijna alle verrekeningen geschieden in contanten.

Reeds jaren tevoren werden in de Vereenigde Staten plannen geboren om tot een oogstverzekering te komen. Pogingen daartoe faalden, meestal omdat men van foutieve premisses uitging, nl. de prijschommeling te willen verzekeren. Dit is thans niet

mogelijk, de Federal Crop Insurance Act van 1938 laat dit natuurlijk niet toe.

Een beschouwing van den Zwitserschen rechtskundige, Dr. C. ROMMEL, vormt het hoofdstuk der verplichte oogstverzekering. Men kan pas tot den verplichten vorm eener verzekering komen, indien de noodzaak aanwezig is, om de individueele vrije verzekering op te heffen of in gebreke te stellen. Dan is men pas gerechtigd een obligatoiren vorm aan te nemen.

Dr. ROMMEL stelt de volgende punten vast: de Regeering dient zich achter de verzekering te plaatsen; de gevaren welke den oogst bedreigen moeten universeel zijn; er mogen geen uitzonderingen voor bepaalde gewassen gemaakt worden; er mogen geen restricties t. a. v. den verzekeringsvorm opgelegd worden; de vrijwillige verzekeringsvorm moet gefaald hebben.

Er wordt terloops gewezen op den verzekeringsplicht in andere landen. Dr. ROMMEL erkent, dat het obligatoire karakter uitgesproken nadeelen kent. Economische noodzaak slechts kan als excuus gelden, waarbij het publiek belang het oogmerk moet blijven.

Hierop worden verschillende vormen van agrarische verzekeringen aan een korte beschouwing onderworpen. Veel nieuws levert deze materie niet op. Slechts zij opgemerkt, dat de franchise een reeds bekende grootheid is. Veelal zijn deze landbouwverzekeringen gefundeerd op onderlinge basis, met alle bezwaren daarvan, genoemd in het hoofdstuk betreffende de onderlinge verzekering.

Tenslotte de concludeerende verhandeling over datgene wat òf in eigen plannen werd gesuggereerd, òf in verband met de latere kennis van zaken daaraan werd getoetst. Reeds bij de behandeling van het Amerikaansche schema werden verschillende punten onder de aandacht gebracht. Ook in de bespreking van de artikelen van Dr. ROMMEL kon aan de critische beschouwing een plaats worden gegeven.

Het laatste hoofdstuk vangt aan met een korte inleiding over den aard van den Nederlandschen landbouw in verband met de eventueele toepassing eener oogstverzekering. Geconcludeerd wordt, dat de economische en harmonieuse structuur van den

vaderlandschen landbouw aan de toepassing van een oogst-verzekering niet in den weg staat, ja zelfs, dat deze structuur vanuit assurantie-standpunt bezien, een zeer gewaardeerde habitus heeft.

Aan de hand van officieel cijfermateriaal worden eenige berekeningen gemaakt om tot het schadepercentage te komen. Het verloop van de opbrengsten werd bovendien in beeld gebracht door middel van een aantal grafieken.

In tegenstelling tot wat als eerste gedachte gegolden had, wordt thans tot de overtuiging gekomen, dat er geen uitsluitingen gemaakt mogen worden bij de oogstverzekering. Er wordt met andere woorden vastgesteld, dat de verzekering „all-risks” behoort te zijn, dus insluitende hagel, storm en andere gevaren, waarvoor mogelijk reeds elders dekking kon worden gegeven. Dit „all-risks” idee sluit uiteraard niet in de oneerlijkheid van den verzekerde, noch diens nalatigheid in de verzorging van de gewassen.

Voorts wordt de aandacht nogmaals gevestigd op het geheele assurantie-arsenaal voor de oogstverzekering, de premie, de schadevaststelling, de franchise en het schadeuitkeeringspercentage.

Het is bij deze studie nimmer de bedoeling geweest te treden in suggesties ten aanzien van de polisvoorwaarden van een dergelijke verzekering. Dit wordt geacht te behooren tot de daadwerkelijke uitvoering der plannen en valt buiten het bestek van het proefschrift.

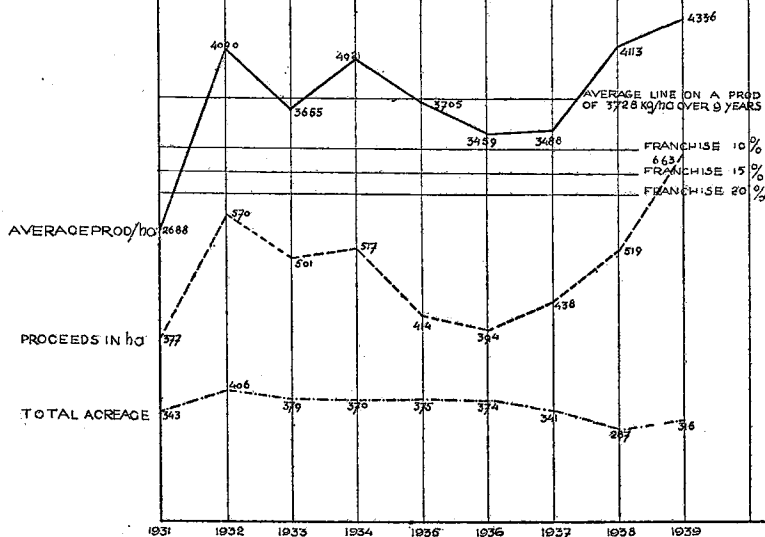
De hoofdgedachte: veiligstelling voor verlies van inkomen, is geheel in overeenstemming met het assurantierecht. Oogstverzekering maakt op dit recht geen inbreuk.

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