# Exploring non-tariff measures in agri-food trade

## Incidences and issues from the Dutch perspective


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# Contents

# Preface

Non-tariff measures (NTMs) in agri-food trade have become increasingly important. In particular, regulations and standards that prescribe the condition under which international agri-food trade takes place have gained importance with the tariff liberalisation and the trend of increasing global trade. The Netherlands is a major trading country, and Dutch exporters are subject to the requirements that importing countries impose on foreign products to be sold on their markets. Regulations and standards in international agri-food trade are the focus of this report.

First of all, this report provides an overview of the many different kinds of requirements and the issues involved. A common framework for understanding the topic of NTMs in the trade context is presented. Secondly, a share-and-shift analysis of trade data and an expert survey is used to identify NTM incidences for Dutch agri-food exporters. Identifying NTMs constitutes a first step before the quantification of their impact.

The report contributes to the discussion about NTMs, their effect and how to tackle them in order to facilitate trade across countries. Besides the results relating to NTMs for Dutch exporters, the report also sheds light on the main issues of defining and analysing NTMs as import requirements in agri-food trade in general. The systematic approach applied is particularly useful given the complexity of the topic.

The analysis is conducted within LEI research on NTMs, in particular standards and regulations in the agri-food sector and was commissioned by the Ministry of Economic Affairs, Agriculture and Innovation. The author would like to thank the experts for their participation in the interviews and their willingness to share their expertise and experience of dealing with NTMs.

Prof Dr R.B.M. Huirne
Managing Director LEI

# Summary

## S.1 Key findings

Different types of products in Dutch agricultural exports have been identified as being potentially affected by non-tariff measures (NTMs) by using trade indicators. **The products most affected by NTMs include live animals, fresh meat and fish as well as live plants, seeds and cut flowers** (see section 3.2).

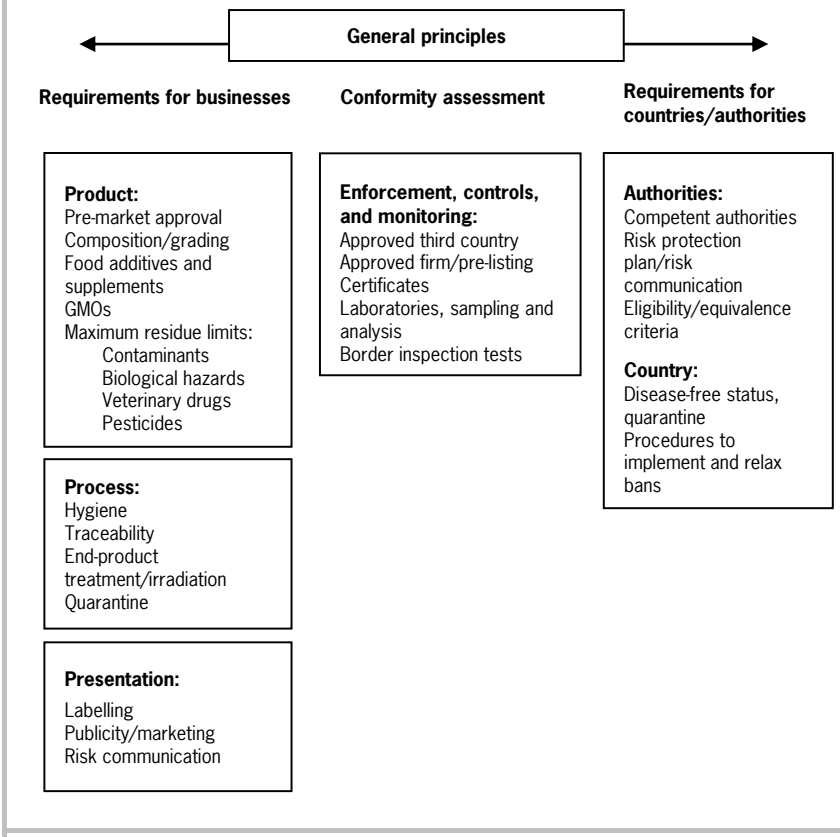
**Product and process requirements demanded by importing countries do not cause major problems to Dutch exporters as long as sales in the foreign market cover the extra costs.** However, some requirements appear to be barriers for Dutch exporters. Conformity assessment, in particular establishment approval and end-of-product testing, and export certificates can be obstacles to selling products on foreign markets (see section 4.2).

**Transparency seems to be one main issue with regard to NTMs** (see section 4.2). Information about the requirements of trade partner countries is not always readily available. Furthermore, requirements have been perceived as being complex, and some requirements seem to deal with "non-issues" that may have been solved or tackled elsewhere and thus contain irrelevant and out-dated information. Up-to date information is crucial for facilitating trade.

## S.2 Complementary findings

A framework such as the one developed in this report is necessary for a systematic analysis of NTMs. The framework distinguishes between firm-level product and process standards, conformity assessment requirements and country-level requirements, including requirements for the domestic authorities involved in food quality and safety control (see Figure S.1).

**Figure S.1** **Non-tariff measures as requirements in international agri-food trade**




Source: Rau et al. (2010) amended.

The effects of NTMs, for example in terms of trade costs or trade loss, are clearly in the interest of policy-makers. The analysis conducted in the report identifies possible NTM incidences that could be investigated in a more detailed and possibly quantitative case study work. The identification of NTMs should be considered as being a starting point for further analysis.

## S.3 Methodology

This report aims at identifying NTM incidences, whereby the focus is on import requirements as an important category of NTMs in international agri-food trade. The specific research questions are as follows:

- How can incidences of NTMs be identified?
- Which export products are affected by NTMs?
- What are the NTMs that exporters face and what are the actual issues at hand?

A shift-and-share analysis of trade indicators (see chapter 3) and expert interviews (see chapter 4) reveal possible NTM incidences from the perspective of Dutch agri-food exporters. The trade indicators reflect the absolute and relative trade performance, incidences of no trade and export stops as well as a free-trade comparison for which the Dutch exports to the other EU member states were taken as the benchmark (see section 3.1). The indicators do not involve a statistical analysis, and there are several challenges in their analysis.

# Samenvatting

## S.1 Belangrijkste uitkomsten

Er zijn verschillende soorten Nederlandse agrarische exportproducten geïdentificeerd waar niet-tarifaire maatregelen (NTM's) mogelijk op van invloed zijn. **De producten die het meest worden beïnvloed door NTM's zijn levende dieren, verse vlees- en visproducten, levende planten, zaden en snijbloemen**.

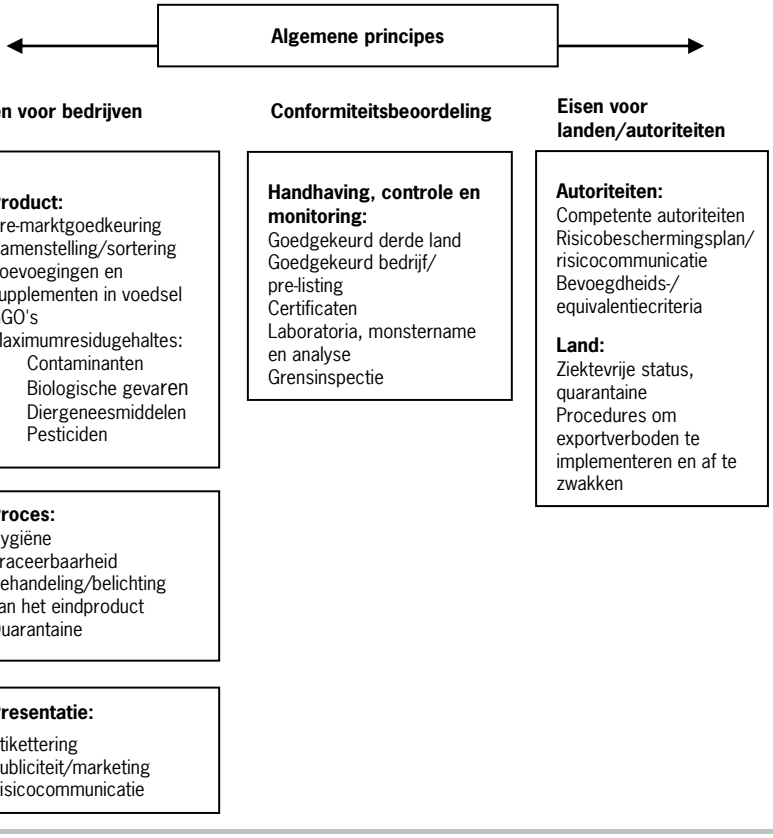
**De eisen die door de importlanden worden gesteld aan producten en processen veroorzaken geen grote problemen voor Nederlandse exporteurs zolang de verkoop in de buitenlandse markt de extra kosten dekt.** Sommige eisen lijken echter belemmeringen te vormen voor Nederlandse exporteurs. Conformiteitsbeoordelingen, met name bedrijfsgoedkeuring en eindproducttests, en exportcertificaten kunnen de verkoop van producten op buitenlandse markten belemmeren.

**Transparantie lijkt een groot probleem te zijn**. Informatie over de eisen van handelspartnerlanden is niet altijd direct beschikbaar. Bovendien worden de eisen gezien als complex en hebben sommige eisen betrekking op 'non-issues' die eerder al zijn opgelost en die gebaseerd zijn op irrelevante of verouderde informatie. Up-to-date informatie is met name relevant voor het faciliteren van de handel.

## S.2 Overige uitkomsten

Een kader zoals in dit rapport is ontwikkeld, is noodzakelijk voor een systematische analyse van NTM's. In het kader wordt onderscheid gemaakt tussen het product op bedrijfsniveau en procesnormen, eisen voor conformiteitsbeoordeling en eisen op nationaal niveau, waaronder eisen voor de binnenlandse autoriteiten die betrokken zijn bij de voedselkwaliteit en de controle hierop (zie Figuur S.1).

**Figuur S.1** **Niet-tarifaire maatregelen als eisen voor de internationale handel in landbouwproducten**




Bron: Rau et al. (2010)

De effecten van NTM's, bijvoorbeeld op het gebied van handelskosten of handelsverliezen, zijn zeker interessant voor beleidsmakers. De analyse die in dit rapport is uitgevoerd, brengt mogelijke problemen met NTM's aan het licht die in meer detail kunnen worden onderzocht en mogelijk kunnen worden onderworpen aan een kwantitatieve casestudy. Het vaststellen van problemen met NTM's moet worden beschouwd als een uitgangspunt voor nadere analyse.

## S.3 Methodologie

Dit rapport is bedoeld om problemen met NTM's aan het licht te brengen, waarbij de focus ligt op importeisen als een belangrijke categorie NTM's voor de internationale handel in landbouwproducten. De specifieke onderzoeksvragen zijn als volgt:

- Hoe kunnen problemen met NTM's worden vastgesteld?
- Welke exportproducten worden beïnvloed door NTM's?
- Wat zijn de NTM's waar exporteurs mee te maken krijgen en wat zijn de huidige problemen?

Een 'shift and share'-analyse van handelsindicatoren (hoofdstuk 3) en interviews met deskundigen (hoofdstuk 4) onthullen mogelijke problemen met NTM's vanuit het perspectief van Nederlandse exporteurs van landbouwproducten. De handelsindicatoren reflecteren de absolute en relatieve handelsprestaties, gevallen waarin er geen handel heeft plaatsgevonden en exportstops, evenals een vrijhandelvergelijking, waarbij de Nederlandse exporteurs die exporteren naar de EU26 als benchmark zijn genomen (zie hoofdstuk 3.1). De indicatoren behelzen geen statistische analyse en er bestaan diverse uitdagingen voor een dergelijke analyse.

# 1 Introduction

Non-tariff measures in agri-food trade have been widely discussed at the national as well as international level, and research on them encompasses a variety of topics and questions. Besides other research questions, NTM research addresses the trade effect of measures and their more far-reaching economic impact. Such analysis is prone to considerable challenges, and often standard methodological approaches cannot be applied.[1] The analysis conducted in this report does not quantify the effects of NTMs but rather aims at identifying incidences of NTMs. The report can thus be seen as a first step for a further quantitative analysis. More specifically, the report sheds light on the following questions:

- How to identify incidences of NTMs?
- Which products of Dutch exports are affected by NTMs?
- What are the NTMs that Dutch exporters face when supplying foreign markets and what are the actual issues at hand?

There are many different types of NTMs. The focus of this report is on standards and regulations as import requirements, which prescribe the conditions for agri-food trade taking place between exporting and importing countries. Requirements by the private sector (as opposed to governmental public requirements) are also covered to a certain extent.[2]

[1] For a concise overview of the challenges in the quantification of the impact of NTMs see, for example, Korinek et al. (2008).

[2] Public standards imply that requirements are referred to in national food law or international rules and can thus become legally mandatory, unlike private standards. Due to their formulation in legal documents, they have often been regarded as mandatory while the requirements by the private sector are voluntary by definition. However, governments may also endorse voluntary standards, and private standards can become quasi-mandatory if a large share of suppliers or retailers requires compliance with them. Voluntary standards typically go beyond the minimum requirements for food safety and other quality aspects and are communicated to consumers in some cases (e.g. organic or fair-trade products). With regard to food safety, private standards particularly describe process requirements and other instructions and thus ensure that minimum (governmental) requirements are actually fulfilled.

The report takes the perspective of exporters wishing to supply foreign markets. With the focus on import requirements, NTMs are covered as potential market access barriers for exporters, and the particular interest of this report lies on the Dutch exporters' perspective. Given the common requirements within the EU single market, the focus is on the import requirements of non-EU countries. More specifically, the prevalence of such NTMs is investigated in terms of Dutch agri-food exporters. In general, EU exporters must satisfy the requirements of the EU and the importing non-EU country, besides the private standards demanded by importers and retailers. The EU member states tend to individually negotiate and agree with the respective importing countries about the conditions for their exports. In contrast, the EU import conditions are largely harmonised across the member states. Except for some certain cases such as preventive measures or temporary bans on specific products following disease outbreaks for example, agri-food trade across the EU member states can be considered to be 'free trade'. Hence, in the present report it makes sense to concentrate on those NTMs that non-EU countries impose on Dutch agri-food exports.

The report is structured as follows: in the first part of the report, the analytical framework of the study is developed as the starting point of the subsequent analysis of NTM. The framework involves a systematic approach which defines the measures studied and provides information about the nature of the issues encountered with regard to NTMs. The second part of the report consists of a shift-and-share analysis of trade data and the identification of NTMs by interviews of experts dealing with respective measures at the Dutch Ministry for Agriculture, Nature and Consumers (LNV), now the Ministry of Economics, Agriculture and Innovation (EL&I), and representatives of the Dutch agri-food business and exporters.

# 2 Framework of the NTM inventory: definition and scope

## 2.1 NTMs in international trade

The term 'non-tariff measures' (NTMs) covers measures that are not tariffs. This definition is far too broad to be used for analytical purposes, being a container definition for a host of measures other than tariffs, all of which have different effects and cause different challenges in the context of international trade. Several attempts have been made to classify NTMs. The United Nations Conference on Trade and Development (UNCTAD), for example, uses a classification of NTMs in its TRAINS (Trade Analysis Information System) database that has recently been refined in cooperation with international organisation and researchers. In the new UNCTAD classification, NTMs are defined as 'policy measures other than ordinary custom tariffs that can potentially have an economic effect on international trade in goods, changing quantities traded or pieces or both' (MAST, 2008). The EU Market Access Database (MADB) proposes an alternative classification of NTMs, but this classification is less detailed such that specific measures cannot be readily identified or analysed.

Table 2.1 presents the different categories of NTMs as defined by the UNCTAD classification. According to the UNCTAD classification, sanitary and phytosanitary (SPS) and technical barriers to trade (TBT) measures belong to the category of technical measures. For the detailed list of measures, see www.ntb.unctad.org.

The NTM inventory in this report looks at SPS and TBT measures, and here the particular focus is on standards and regulations as import requirements. Amongst SPS and TBT measures, we find standards and regulations that stipulate the requirements and conditions under which agri-food trade takes place. The focus on standards and regulations has been chosen because standards and regulations are increasingly important in international agri-food trade and because they constitute a particular important area of policy-making.

| Table 2.1 | Non-tariff measures according to the UNCTAD classification |
|---|---|
| **Technical NTMs** | SPS measures<br>TBT measures } **Focus of the analysis in this report** |
| **Non-technical NTMs** | Pre-shipment inspections, formalities<br>Price control<br>Licences, quotas<br>Charges, taxes and other para-tariffs<br>Finance measures<br>Anti-competitive measures<br>Trade-related investment measures<br>Distribution restrictions, restrictions on sales/services<br>Subsidies (excluding export subsidies)<br>Government procurement restrictions<br>Intellectually property rights<br>Rules of origin |
| Source: www.ntb.unctad.org. | |

Governments use standards and regulations for food safety and other quality aspects in order to tackle information problems and externalities associated with the production and consumption of agri-food products. Standards and regulations in international trade can be considered to be behind the broader measures and thus go beyond traditional trade policy measures. Fulfilling certain requirements means costs for producers and in the trade context the requirements demanded by importing countries cause costs for exporting if they differ from domestic requirements and involve controls as well as proof of compliance at firm and/or country level. With the potential costs involved, standards and regulations have often been regarded as trade-restricting, but in fact they can also facilitate trade (see chapter 2.2).

Within the trade rules of the World Trade Organisation (WTO), the SPS and TBT Agreement deal with the standards and regulations in trade. Here it is important to notice that standards and regulations are a means to an end, and countries thus have the right and obligation to set them. This is underlined in the aforementioned agreements. However, the agreements define the use of standards and regulations as import requirements in order to ensure that they are not misused as protectionist measures in international trade. Both at bilateral and multi-national level, standards and regulations as import requirements have been widely discussed. The WTO legal terminology distinguishes between voluntary standards and mandatory regulations.

Governmental requirements are primarily mandatory due to their formulation in legal documents, while the requirements by the private sector are by definition voluntary. However, governments may also endorse voluntary standards that typically go beyond minimum requirements and typically relate to food quality rather than food safety. At the same time, private standards can become quasi-mandatory if many suppliers or retailers require compliance with them. The criterion of mandatory and voluntary requirements thus seems to be limited to defining requirements, and other characteristics should be considered.[1]

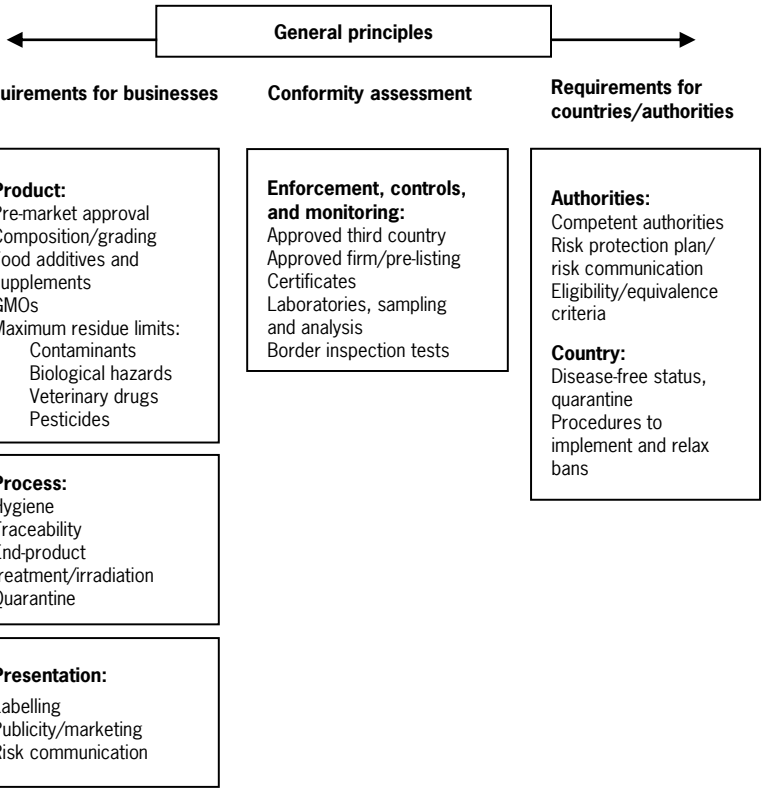
For exporting, the requirements imposed by governments of importing countries on foreign products matter in terms of minimum requirements. If the import requirements of the public authorities are fulfilled, exporters are in principle allowed to sell on the respective market. In practice, the requirements imposed by the private sector buying foreign products as imports or selling them on to consumers are at least equally important as governmental requirements; private standards ultimately determine whether foreign products are actually sold on the market of the importing country, as already mentioned. While private standards play an important role with regard to agri-food exports from developing countries to industrialised countries, they also seem to be relevant for trade between developed countries as agri-food supply chains are international and firms can be made liable for the safety and quality of their products, regardless of whether the products are produced at home or abroad. In this respect, the due diligence of firms to ensure products of a high safety and quality level may explain the proliferation of private standards that are frequently business-to-business (B2B) standards and not communicated to consumers. Focusing on standards and regulations in agri-food trade, the present report considers the requirements by the private sector where possible.

A more specific classification of SPS and TBT measures is necessary for the analysis, and on this basis the remainder of this section establishes a common understanding about the requirements relevant in international trade of agri-food products.

[1] For example, Henson and Humphrey (2009) elaborate on the private and public requirements to control food safety and quality and their interrelation. For a practical comparison between international standards and the private standard GlobalGAP, former EurepGAP see Rau (2009).

Figure 2.1 presents a systematic approach of such a classification of measures by distinguishing between different types of requirements, which are formulated as standards and regulations. As illustrated, some general principles can be considered to form an umbrella supporting the more detailed regulatory system. For the EU member states, for example, Regulation EC/178/2002 (Official Journal L31, 01/02/2002) provides this umbrella at the top level of EU food law. The columns in Figure 2.1 refer to three different types of requirements that are grouped together and respectively show different regulatory elements.

**Figure 2.1** **Non-tariff measures as requirements in international agri-food trade**




Source: Rau et al. (2010) amended.

First, there are the requirements that producers directly face and hence have to consider when generating products for markets of trade partner countries. Among these, product, process and presentation requirements are distinguished as regulatory elements, which are further specified according to what is regulated (Figure 2.1, first column). In order to provide evidence that firms actually meet the respective requirements, some kind of conformity assessment is demanded and such requirements of conformity assessment constitute another category of measures (second column). Besides testing and controls, both at firm level as well as at the border, conformity assessment includes certificates issued to signal compliance as well as pre-listing requirements. Only the products of those firms that are approved according to the respective requirements are accepted, and the firms appear on a list of eligible exporting firms. At the same time, countries can be approved as the source country of products. In this case, the countries are listed. Other measures also regulate eligibility for exporting at country level (third column). Such country level requirements on the one hand refer to the prevalence of diseases and pests in the exporting countries (disease-free status). On the other hand, they directly address national authorities. Requirements for national authorities are closely connected with the institutional structure and public procedures to control food safety and quality in the exporting country.

## 2.2 Issues from the exporters' perspective

Standards and regulations as import requirements have often been considered to be trade barriers, but they also bring about benefits. One important benefit naturally relates to the achievement of the legitimate objectives of requirements, such as food safety as well as plant and animal health, for example. Furthermore, information is provided to sellers and buyers located in different countries, and this actually facilitates rather than hampers trade. In fact, it can be argued that import requirements make trade possible in the first place and their obvious benefit should not be ignored when considering issues caused by import requirements from the perspective of exporters. The requirements that countries impose on foreign products naturally have consequences for producers wishing to supply their products on the respective markets and thus engage in trade. This section elaborates on the following issues from the exporters' perspective: compliance costs (fixed and variable costs of compliance), information issues and the issue of recognition.

*Compliance costs*

Meeting the requirements of importing countries creates costs for exporters if the import requirements differ from the domestic requirements in the exporting country and if import requirements differ across trade partner countries. Such differences cause compliance costs that tend to accumulate when selling the same products on several foreign markets where compliance with different requirements is demanded. While compliance costs can be significant in absolute terms, their relative share in total production costs is often small, especially when evaluated at national or industry level. The magnitude of compliance costs usually varies across producers developing their own compliance strategy. The costs of meeting the same requirements can be a greater burden for some producers than for others and may be insurmountable for some groups of producers, for example small and medium-sized firms. Requirements that leave firms free to pursue their own compliance strategies can be expected to result in relatively lower compliance costs. For example, this is the case for performance requirements that prescribe the results to be achieved but do not prescribe the procedures to be followed or detailed product characteristics.

Just like production costs, compliance costs can be divided into variable and fixed compliance costs. This distinction is important because variable and fixed compliance costs affect producers in different ways. Variable compliance costs add to the usual variable production costs, and their magnitude depends on the firms' efficiency to meet the respective requirements as well as on other factors, for example local condition, technical and administrative services. Fixed compliance costs on the other hand are certification costs but also investment costs associated with adjusting the production to the respective requirements, for example upgrading plant and machinery equipment, one time product design or product redesign. Such investments tend to be of limited alternative use in the short and medium term, thereby resulting in sunk costs. Such fixed compliance costs act as market entry barriers and can result in the exclusion of some firms, particularly small and medium-sized firms that are likely to have more problems covering the fixed compliance costs than large firms. Large firms tend to benefit from economies of scale in undertaking the investment to comply.

Requirements for firms lead to both variable and fixed costs of compliance, and referring to the framework applied in the report, the respective requirements are presented in the first column of Figure 2.1. Requirements of conformity assessment, which are presented in the second column, also create additional costs. It can be argued that these costs are more general trade costs

as they predominantly result from issues that are not directly related to the production at firm level. One main issue of conformity assessment occurs when importing countries do not trust the tests conducted in the exporting country and demand further and/or additional testing. Such duplication of conformity assessment increases trade costs. The same applies to the testing of firms and/or countries to be acknowledged as eligible exporters. As already mentioned, certification signals compliance with certain requirements, and firms would usually pay a fee to obtain corresponding certificates that are either issued for consignments (leading to variable costs) or the entire production is certified (leading to fixed costs). In the trade context, certificates are usually issued for individual consignments and thus add to the variable costs of exporting firms. The costs of exporters largely depend on national authorities and their organisation as well as the services of supporting firms in their effort to provide evidence of their compliance. In the broad sense, this is related to requirements for authorities to engage in quality and safety control. Examples of requirements for authorities are presented in the third column in Figure 2.1. In general, reliable and responsible authorities play a crucial role in international trade so that trusted guarantees for the safety and/or quality level can be provided to suppliers and buyers situated in different countries. This issue does not occur at firm level but can nevertheless be considered to influence international trade as it affects the possibility to trade from the exporters' point of view.

*Information issues*

Besides adjusting to requirements for compliance, obtaining the information about requirements is of course another aspect. On the one hand, finding out about the requirements demanded in foreign countries takes time and effort, especially when the respective legislation is not well communicated, translated into English and/or made transparent for others to understand. On the other hand, requirements can frequently change, and the necessary update can be considered an important on-going costs position. Large export firms thus tend to have personnel dedicated to dealing with the market access requirements of their trade partner countries. Gathering information about requirements leads to information costs, which can be considered an addition to the actual compliance costs at firm level.[1]

[1] In the case study on Dutch dairy products, Achterbosch (2007) for example explores these costs by looking at the number of staff employed for such tasks, including quality control. Bremmers et al. (2008) present another case study of the dairy sector. In the latter, dairy farms are asked about the administrative burden of EU and national regulations and the impact on competitiveness.

*Issue of recognition*

Another issue which has frequently been mentioned as being a barrier for Dutch agri-food exporters is the lack of recognition of firm level or country level eligibility to export to the respective foreign market (compare section 4.2). In general, trade partner countries may compile a list of the countries from which exports are accepted or a list of foreign firms which satisfy the requirement and which are thus allowed to export to the respective importing country (pre-listing). While the trade partner country may not approve all Dutch agri-food producers as complying with their requirements, the Dutch system (or EU system) may not be considered compatible with the requirements of the importing country. In the latter case, the potential trade partner countries do not allow any Dutch exports into their market, even if individual firms comply. As mentioned, different quality and safety control systems may be one reason for not recognising a country's eligibility to export. Another reason could be the prevalence of certain diseases or pests and how to deal with them (issue of regionality).

## 2.3 Methodological Approach

For the present report, the available information was collected and analysed in order to identify NTMs from the Dutch trade perspective. A survey of Dutch agri-food exporting firms was initially suggested. This was an ambitious task that unfortunately could not be fulfilled. Besides organisational matters, conducting firm level surveys about NTMs is a challenge. One main difficulty relates to the biases in the survey when directly asking firms about NTMs and the problems they face due to NTMs. More specifically, biases occur in the choice of firms approached for the interviews as well as in the selection of firms actually answering the questions asked. Furthermore, the intention of firms to participate and provide information affects survey results, whereby firms often consider their information about NTM issues to be strategic and thus confidential.

Instead of conducting a survey, it was decided to question experts at the Ministry and representatives of the respective sector that deal with NTM issues and solutions. The interviews aimed to collect their experiences and knowledge about NTMs for Dutch exporters.

In addition, the European Commission's register of complaints by EU agri-food exporters was evaluated in order to provide some firm level information. The information provided does not allow for identifying complaints from exporters in specific member states but it does give a general overview of NTM issues experienced by EU exporters and the overview thus includes NTMs for Dutch exports.

The report comprises a trade data analysis that specifically looks at changes of trade value and shares of trade value from the Dutch export perspective. The aim of this shift-and-share analysis is to give a possible indication of the potential Dutch export products affected by NTMs. When conducting such an analysis, the main question is how to actually identify the prevalence of incidences of NTMs. In order to point out possible NTM incidences, several indicators are developed and applied to the available trade data. The results of the shift-and-share analysis are complementary to the results of the interviews, and the combination of results could be used for determining the focus of further analysis (compare chapter 5.1).

# 3 Analysing trade data to identify NTM incidences (shift-and-share analysis)

The aim of the shift-and-share analysis is to identify possible incidences of NTMs in Dutch agri-food trade. The analysis applies indicators looking at the absolute and relative trade performance as well as potential trade. Focusing on the Dutch exporters' perspective, it is generally differentiated between exports to the other EU member states, denoted by EU26 (intra-EU), and exports to third countries outside the EU (extra-EU).[1] The analysis covers the five most recent years of trade data available, thus looking at the period 2004-2009.

Overall, it is important to note that the results of the analysis should be interpreted and used with great care. When referring to the results presented in this report, the assumptions underlying the analysis should be stated and the caveats of the analysis must be considered. This is because the trade analysis of NTMs bears major challenges, which can severely influence results and their interpretation. With regard to the analysis performed in this report, the following two challenges should particularly be noted.

First of all, the indicators applied indicate trade issues that could be due to NTMs but also reflect other factors. The analysis does not deliver final conclusions about causal relationships between NTM incidences and trade effects, let alone economic and other effects. Secondly, analysing trade data tends to underestimate the real implication for trade as the observed trade data encompass the lower trade flows due to NTMs as barriers to trade. The larger the trade barrier, the lower the trade flow observed and used in the analysis. In the extreme case, for example, an import ban for SPS reasons results in no trade flows. With no trade data observed, there will be no effect reported in the trade analysis, but the effect of the import ban would naturally be substantial if a potentially large volume or value of trade was entirely blocked. The trade analysis performed in this report accounts for this extreme situation by also looking at incidences of no trade.

[1] The Dutch exports to the EU26 include those products that are shipped via the EU member states to other final export destinations. This trade in transit cannot be eliminated given the lack of information available. Note that information about trade in transit could potentially provide further insights about NTMs as exporters may use other countries to channel their products to those markets where they do not have direct access due to the NTMs imposed.

The trade data used comes from the Eurostat ComExt database. The trade data is deflated by using a standard GDP deflator.[1] When deflating trade data, price changes are isolated. Hence, the deflated trade data does not reflect price changes resulting from exchange rate fluctuations for example and constitute one of the factors determining trade. The changes in the trade values observed can thus be attributed to other determinants of trade, such as NTMs. Note that price difference and price changes due to product quality are not accounted for. To solve this issue, trade volume or unit values could be studied in the analysis. However, the quantities of products traded are not always available and comparing products measured in different units is generally questionable. Thus, the analysis here only looks at trade values which more specifically refer to export flows of agri-food products. The respective data is extracted for 6-digit codes of the Harmonised System to classify products in international trade (HS codes). The categories of HS codes included are those for agri-food products: HS01- HS24 and other HS codes for products relating to fibres and textiles made of agricultural products for example. Appendix 1 provides the list of HS codes and the corresponding product descriptions at 2-digit level as an overview. Using the 6-digit HS codes provides the level of detail necessary for analysing NTMs that usually affect specific products and can thus be considered to be rather product-specific.

## 3.1 Indicators to identify NTM incidences

NTMs can decrease, increase or leave trade unchanged. The potentially trade-increasing effect, which is primarily triggered by the consumers' demand for compliant products and which is manifested in welfare benefits, has only recently been included in the analysis of NTMs.[2] While acknowledging the possible positive impact of NTMs, this report looks into NTM incidences and thus considers NTMs as potentially restricting market access in agri-food trade. On this basis, the shift-and share analysis performed focuses on decreases of trade and incidences of no trade in order to identify the prevalence of NTMs. It

[1] The GDP deflators used are provided by the World Economic Outlook of International Monetary Fund. The GDP deflators are calculated for each year and longer time series are also publically available at www.imf.org/external/pubs/ft/ weo/2011/01/weodata/index.aspx. The Dutch export data is deflated by using the GDP deflator for the Netherlands. For the exports of the other EU member states, the average GDP deflator for the Eurozone is used. In both cases, the reference year is 2004.

[2] For example, van Tongeren et al. (2009) provide a costs-benefit framework for the assessment of NTMs within OECD research.

is argued that NTMs cause trade frictions which can be detected by examining the absolute and relative trade performance and/or trade potential. In order to identify NTMs in a trade data analysis, four broad types of indicators are introduced and subsequently applied in the next section. The remainder of this section elaborates on the indicators and explains the reasoning behind them. See Appendix 2 for a brief summary.

- *Absolute trade performance*
  The indicator is the absolute and/or percentage change of Dutch exports to the EU26 (intra-EU) and non-EU third countries (extra-EU), thereby covering the entire volume of Dutch exports. The average change in trade value (arithmetic mean) during the 2004-2009 period is studied. A reduction in Dutch exports could point to a possible NTM incidence for exporters, but this indicator is arguably rather weak as a host of other factors could have caused the observed reduction of Dutch exports.[1]

- *Relative trade performance*
  The trade performance of countries essentially refers to their relative competitiveness and is thus best analysed in comparison to those countries competing in international trade. In this report, the indicator of relative trade performance takes the comparative approach for analysing NTMs. In principle, any main exporting country could be considered to be a potential competitor of Dutch agri-food exporters, but including all of them in the analysis would be impossible and also beyond the scope of the report. For such a comprehensive analysis, the data requirements would be enormous and not manageable without specialised data tools. In order to stay within the limits of the analysis performed in this report, exporters from the other EU member states (EU26) are chosen as competing countries which can be reasonably compared with Dutch exporters. Using the aggregate of the other EU member states, the indicator of relative trade performance is defined as the share of Dutch exports in the respective agri-food exports of the EU26, and a decreasing share points towards NTM issues from the Dutch perspective.



[1] Note that exchange rate fluctuations and thus the possible consequences of the strong Euro have been accounted for by deflating the data.

- *Trade stops*
  NTMs can lead to trade frictions whereby trade entirely stops between trade partner countries. As trade can naturally resume after the respective NTM issue is resolved or otherwise overcome, the average trade volume or value for the period under review does not provide information about trade stops. Note that monthly or even weekly trade data would be necessary to properly analyse trade stops. Such a detailed analysis may be promising for identifying NTMs because NTM incidences are likely to occur within a period of a year. However, annual trade data is used in the analysis here, and thus possible short-term NTM issues blocking trade between the Netherlands and trading partners cannot be identified. The indicator gives information about incidences of no trade or trade stops, with the latter implying that trade restarted after at least one year for which no trade flow is reported in the trade data.

- *Benchmark of Dutch exports to EU26*
  The rationale behind this indicator is based on the assumption that trade across the EU member states is by and large not subject to NTMs. That is, agri-food products are considered to freely circulate within the EU common market. The assumption of free trade without NTMs seems plausible for agri-food products given the general tendency of harmonised rules and regulations for all member states, i.e. the tendency of common EU requirements for food safety and quality which must be met when supplying the respective markets of any EU member states. With this indicator, Dutch agri-food exports to the other EU member states (EU26) are compared with the corresponding Dutch exports to non-EU countries. The comparison gives an idea about those agri-food products that are subject to NTMs by third countries and indicates whether NTMs cause an issue for Dutch exporters supplying the markets of non-EU countries, given the assumption that Dutch exports to the EU26 are not hampered by NTMs. Note that the difference between Dutch exports to the EU26 and to third countries can be explained by many factors, including NTMs of non-EU members but most notably also tariffs, distance, consumer preferences, income, etc.

## 3.2 Analysis of indicators to identify NTM incidences

Each of the indicators elaborated above are analysed in this section. While no conclusions for all agri-food exports are delivered, the results are summarised by referring to the respective tables provided in Appendix 6. The tables contain the results of the indicators in detail as it is impossible to present the results for all of the 998 agri-food products and related products according to the HS classification system. The very long complete lists of results can be provided on request.

*Absolute trade performance*

The first indicator looks at changes in Dutch agri-food exports to the other EU member states and to non-EU countries. Appendix 6 contains the lists of products for which Dutch exports decreased during the period 2004-2009. Table A6.1 presents the list for Dutch exports to non-EU countries, while Table A6.2 presents the lists for Dutch exports to the EU26. The two tables respectively show the value of the average decrease (arithmetic mean) and the corresponding percentage changes. Interestingly, the largest decreases for both Dutch exports to the EU26 and to non-EU countries are observed for fresh cut flowers and flower buds (HS code: 060310). The decrease observed is very prominent compared with the change of other export products.

As already explained, the observed decrease in exports could be due to NTMs, but many other factors naturally influence trade. Thus the indicator of the absolute trade performance, more specifically the decrease in Dutch exports, is weak and other indicators are needed to provide more and better clues about the possible incidence of NTMs.

*Relative trade performance*

This indicator compares the respective Dutch agri-food exports with those of the other EU countries by looking at the Dutch share in the respective EU agri-food exports to non-EU countries. Table A6.3 in Appendix 6 provides the average share for those products for which the share decreased most during the period 2004-2009. Note for some products the average percentage point change is larger than the share, leading to an unfavourable outcome for Dutch exporters that lose their share in EU exports to non-EU countries.

A decrease in the share in EU26 exports can be attributed to a reduction in Dutch exports to third countries, to an overall reduction of EU exports or both. For the agri-food products with the largest decrease in the share of Dutch exports, Table A6.4 in Appendix 6 gives the respective change in Dutch and

EU26 exports. As shown, a decrease is found for both Dutch and EU26 exports of some products, but for other products, only Dutch exports decreased. Giving the HS codes in brackets, the most notable changes are reported for cabbage (070490), aubergines (07093), poppy seeds (120791), groundnut oil (150890) homogenised vegetables (200510), lettuce (070519) and mushrooms (070951). For these and more products, the Netherlands lost exports, while the other EU member states increased their exports of the same product and this could point towards NTMs for Dutch exporters.

*Incidences of no trade and trade stops*

As already mentioned, it is important to consider the fact that NTMs can lead to trade frictions that entirely stop trade between partner countries. The indicators looked at specifically identify a) those products for which no Dutch exports are reported, b) those products for which Dutch exports stopped and resumed and c) how often trade stopped between 2004 and 2009. As before, a distinction is made between exports to third countries, i.e. non-EU member states (extra-EU), and exports to the other EU member states (intra-EU).

Table 3.1 gives an overview of the number of products for which the trade data shows either no trade or at least one trade stop, whereby trade stops are defined as incidences where trade stopped and restarted. Trade stops occur for many reasons other than NTMs, and it should be noted that the trade data reports no trade if countries do not trade but also if there is no information about trading activities. This adds a potential bias in the identification of incidences of no trade. Despite this potential bias, analysing incidences of no trade and trade stops is interesting for the analysis of NTMs.

| Table 3.1 | Number of Dutch products for which trade and no trade is observed or for which trade stopped and resumed (6-digit HS codes), 2004-2009 | | |
|---|---|---|---|
| **Dutch exports to non-EU countries (extra-EU) [Number of products]** | | **Dutch exports to EU member states (intra-EU) [Number of products]** | |
| Trade | 648 | Trade | 732 |
| No trade at all | 158 | No trade at all | 132 |
| Trade stop | 192 | Trade stop | 134 |
| **Duration of trade stop** | | | |
| 5 years | 13 | 5 years | 18 |
| 4 years | 27 | 4 years | 37 |
| 3 years | 83 | 3 years | 62 |
| 2 years | 36 | 2 years | 8 |
| 1 year | 33 | 1 year | 9 |

Source: LEI using ComExt data.

Looking at the numbers of products traded, the Netherlands exported a wider range of products to the other EU member states than to third countries outside the EU. However, the difference seems to be quite moderate. The list of products that were not traded at all or for which trade stopped for between one and five years is relatively long and can be provided on request. Overall, there were no Dutch exports to non-EU countries for 350 agri-food products on average, and with regard to the EU26 as the export destination, the Netherlands did not export 266 agri-food products. Tables A6.5 and A6.6 in Appendix 6 contain the list of products for which trade stops are reported, whereby only those with a trade stop of four or five years are listed.

According to the trade data, the number of products for which trade stopped at least once during the period 2004-2009 is larger in trade with non-EU countries. The duration of the trade stops varies. For example, the data shows a one year trade stop for nine products exported from the Netherlands to the other EU member states (see Table 3.1). For Dutch exports to non-EU countries, many more one year trade stops are reported. It is interesting to note that with regard to exports to the EU26, fewer products were subject to shorter trade stops (one to three years) and more products were subject to longer trade stops (four to five years). Incidences of no trade for Dutch exports to the EU26 and non-EU countries are analysed further when looking at the next indicator.

*Free-trade comparison with the EU26 as the benchmark*

This indicator compares changes of Dutch agri-food exports to non-EU countries and changes of Dutch exports to the EU26. Assuming that trade with the other EU member states is more or less free and thus not subject to NTMs, the comparison takes the exports to the EU26 as a benchmark that represents the best possible performance of Dutch exporters. So comparing Dutch exports to the EU26 with corresponding exports to non-EU countries indicates whether Dutch exporters could fully exploit their potential in trade with non-EU countries. Given the assumption of free trade across the EU member states, the three situations summarised in Table 3.2 guide the analysis of the indicators by pointing out possible NTM incidences for Dutch exports to third countries outside the EU.

**Table 3.2** **Situations for the free-trade comparison with the benchmark of Dutch exports to the EU26**

| | Dutch export to EU26 | Dutch export to non-EU countries |
|---|---|---|
| Situation 1 | trade | no trade |
| Situation 2 | large increase | only small increase |
| Situation 3 | large increase | decrease |

Note: When comparing changes in trade values as in situations 2 and 3, it can be argued that a large difference of the observed changes indicates that NTM incidences are most prominent and seem to matter.

*Situation 1*

First of all, the indicator considers the situation where Dutch exporters export to the EU26 but not to non-EU countries. Exports to the EU26 show that there is general export potential but nevertheless the Dutch exporters do not export to non-EU countries. Table A6.7 in Appendix 6 lists the products for which the trade data reveals this situation: the Netherlands do not export to non-EU countries but to the EU26. In total, there are 95 agri-food products for which this situation applies. In the other two situations, Dutch exporters do export to non-EU countries. Focusing on changes in Dutch exports, situation 2 considers the case when the increase in Dutch exports to the EU26 is much larger than the increase in exports to non-EU countries. In addition to many factors, NTMs imposed by the non-EU countries could be one reason for the moderate increase in exports and/or the large difference between the export changes. In situation 3, Dutch exports to non-EU countries fall while the corresponding exports to the EU26 increase. A large difference in the changes in absolute

terms[1] indicates that the Dutch export products could be subject to NTMs imposed by non-EU countries and which could have led to the observed decrease in exports to non-EU countries. Dutch exporters may channel their products to the other EU member states and this could possibly explain a large increase in exports to the EU26.

*Situation 2*

Table A8 shows the growth of Dutch exports to the EU26 and to the non-EU countries. In the period 2004-2009, an average increase in both Dutch exports to the EU26 and to non-EU countries is observed for 312 agri-food products. For 254 of these products, exports to the EU26 increase more than exports to non-EU countries. As presented in Table A8, the largest difference in the increase in Dutch exports to the EU26 and to non-EU countries is observed for cut flowers, and the difference is much larger than for other products. While pointing towards NTMs for Dutch flower exports, the result also seems to reflect the fact that the markets of the other EU member states are obviously more attractive for cut flowers due to their relative proximity. Furthermore, the Netherlands is known for its flower trade. Thus many exports of flowers from third countries arrive in the Netherlands and are then sold on to the other EU member states (trade in transit).

*Situation 3*

Looking at the average values, Table A6.9 in Appendix 6 compares the increase in Dutch exports to the EU26 and the decrease in Dutch exports to non-EU countries, while Table A6.10 in Appendix 6 lists the products for which the increase in exports to EU26 is smaller than the decrease in NL exports to non-EU countries (in absolute terms). For 162 agri-food products, the trade data analysis shows an increase in Dutch exports to the EU26 and a decrease in exports to non-EU countries. Amongst them, the increase in exports to the EU26 is larger than the decrease in exports to non-EU countries (in absolute terms) for 127 products. From the Dutch exporters' perspective, these products could be subject to NTMs imposed by the non-EU countries. That is, NTMs could have hampered the obviously prevailing potential of Dutch exporters, which is reflected by the large increase in Dutch exports to the EU26 but does not successfully materialise in the market of the non-EU countries.



[1] The difference is calculated by taking the Dutch exports to the EU26 (intra-EU) as the benchmark for comparison, the difference thus equals (intra-EU) - |(extra-EU)|.

# 4 Incidences of NTMs and issues from the exporters' perspective

This chapter presents information about the actual NTM incidences reported and the issues arising from the exporters' perspective. Firstly, the complaints about trade barriers reported by EU exporters to the European Commission are analysed. The European Commission provides the respective information in the EU Market Access Database. As the information is not given for individual EU member states, the perspective of the Dutch exporters cannot be made explicit when using this complaint register. Nevertheless, the more general insights derived from analysing EU exporter's complaints seem to be interesting and relevant for the present report. In order to specifically capture the perspective of Dutch exporters, experts from the Ministry and sector representatives were questioned. In this chapter, the EU exporters' complaints are presented first, followed by the results of the interviews.

## 4.1 NTMs from the EU exporters' perspective

This section gives an overview of NTMs for EU agri-food exporters that are considered to restrict market access and thus hamper trade from the EU perspective. Such trade issues are reported to the European Commission, and the information about them is stored in the EU Market Access Database (MADB). The MADB is part of the European Commission's strategy to improve market access by building a market access partnership between member states, business and the European Commission (European Commission, 2007). The strategy firstly involved the identification of barriers for EU exporters, followed by a phase during which barriers were removed. In a joint effort by all partners in the EU member states, the European Commission published the first 'EU Trade and Investment Barriers Report' in 2011. The report identifies important barriers in the markets of six strategic economic partners and proposes specific actions to remove these barriers; see European Commission (2011). The results of this recent report are summarised, but first the information available in the MADB is briefly introduced and analysed. For more details about MADB, see Appendix 3.

The MADB consists of the trade barrier database and the SPS database. The available information from the two data sets is evaluated in this section. In both the trade barrier database and the SPS database, information is given according to type of measure, product and export destination. Note that the MADB does not use actual product codes or provide information about the trade volume and/or value affected. It is thus not possible to establish the link to HS codes or conduct a trade analysis when using the MADB. With the focus on agri-food products, the information about the MADB product categories of agriculture (including fisheries) and beverages is studied and according to the MADB classification, the following four types of measures related to requirements in trade are considered:

- Quantitative restrictions and related measures, import bans
- Registration, documentation, customs procedures
- Sanitary and technical standards requirements
- Sanitary and phytosanitary measures

While the database includes descriptions of the measures and the associated issues involved, here only the number of complaints is analysed. It is important to bear in mind that the number of complaints does not indicate the importance of the measures or the impact of the measure. For EU agri-food exports, 113 complaints about the aforementioned four types of NTMs are reported and have not yet been solved. While around three quarters of all complaints (all types of NTMs) concern these four types of NTMs, the absolute majority of complaints relate to SPS measures, in particular with regard to agri-food products. Complaints for agri-food products account for nearly 35% of all complaints registered for the entire product range, and 85% of the complaints for agri-food products were made about SPS measures. Tables 4.1 and 4.2 respectively give an overview of the information provided by the trade barrier database about the measures studied in this report.

As shown in Table 4.1, most complaints are reported for live animals and meat that can generally be considered to be subject to relatively strict regulations, particularly after the incidence of bovine spongiform encephalopathy (BSE) and other crises. EU exporters also reported a considerable number of complaints about horizontal SPS measures that apply to all food products and comprise general food safety and hygiene regulations. For agri-food products in total, Table 4.2 presents the trading partner countries (export destination) that impose the respective measures on EU exports.

**Table 4.1 Number of NTM type according to agri-food products**

| Products | Quantitative restrictions and related measures | Registration, record-keeping documentation | Sanitary and phytosanitary measures | Standards and other technical requirements | Total |
|---|---|---|---|---|---|
| Live animals and meat | 1 | 1 | 65 | 3 | 70 |
| Fish | 1 | 1 | 2 | 1 | 5 |
| Dairy | 2 | | 4 | 1 | 7 |
| Honey | | | 1 | | 1 |
| Fresh fruit and vegetables | | | 5 | | 5 |
| Processed fruit and vegetables | 1 | | | | 1 |
| Crops | | | 3 | 2 | 5 |
| Plants, trees and flowers | | | 3 | | 3 |
| Beverages | 2 | | 2 | 3 | 7 |
| Horizontal | | | 10 | 2 | 12 |
| Total | 7 | 2 | 95 | 12 | 116 |

Source: data extracted from MADB, trade barrier database, 2011.

| Table 4.2 | Complaints by EU exporters according to type of NTM measure and export destination | |
|---|---|---|
| **Type of measure** | **Number** | **Export destination (number of complaints)** |
| Quantitative restrictions and related measures | 7 | Canada (1), Egypt (1), Ghana (1), Iceland (1), Tunisia (1), US (1), Venezuela (1) |
| Registration, documentation, and customs procedures | 2 | Chile (1), Egypt (1) |
| SPS measures | 95 | Argentina (2), Australia (4), Brazil (2), Cameroon (1), Canada (1), Chile (1), China (4), Colombia (2), Ecuador (2), Egypt (4), Hong Kong (1), India (3), Indonesia (3), Israel (4), Japan (6), Jordan (2), Lebanon (1), Malaysia (3), Mexico (8), New Zealand (3), Oman (1), Panama (1), Peru (3), Philippines (1), Russia (3), Saudi Arabia (1), Singapore (2), South Africa (1), South Korea (4), Taiwan (5), Trinidad (1), Turkey (1), Ukraine (1), US (8), Uruguay (2), Venezuela (2) |
| Standards and other technical requirements | 12 | Argentina (2), Canada (1), India (1), Israel (1), Japan (1), Moldavia (1), Switzerland (2), Turkey (1), US (2) |
| Total number | 116 | |

Note: The number of complaints reported for the respective export destinations is given in brackets.
Source: data extracted from MADB, trade barrier database, 2011.

Table 4.3 presents the complaints registered in the MABD database on SPS measures (SPS database). The SPS measures are categorised according to their main aims of addressing animal, plant and human health issues. SPS measures are mainly imposed for animal health reasons. The SPS database shows that most EU exporters' complaints about SPS measures are listed for different product categories. The great majority of complaints are reported for live animals and meat products, and from the perspective of EU exporters, these products are thus most affected by NTM issues. This corresponds with the information extracted from the trade barrier database where most complaints concern measures relating to live animals and meat (compare Table 4.1). Note that the number of complaints about SPS measures reported in the SPS database and the corresponding information provided by the trade barrier database is not identical. This is due to the different sources and ways of

collecting the data, as described in Appendix 3. Moreover, difficulties in counting complaints can also lead to different results. When looking at the products, for example, measures may well be counted several times in complaint registers. This is because measures and their goals often apply to several products or product groups. The number of complaints according to product or measure can thus generally be expected to be larger than the number of complaints according to goal of the measure.

| **Table 4.3** | **Overview SPS measures according to export destination** | |
|---|---|---|
| **Goal of the SPS measure** | **Total number of complaints** | **Export destination (number of complaints)** |
| Animal health | 37 | Argentina (2), Australia (3), Bosnia/Herzegovina (1), Bulgaria (1), China (3), Colombia (1), India (1), Indonesia (1), Japan (2), Jordan (1), Mexico (3), New Zealand (1), Panama (1), Peru (5), Saudi Arabia (1), Singapore (1), South Korea (1), Taiwan (4), US (1), Uruguay (1), Venezuela (1) |
| Plant health | 3 | Egypt (1), India (1), Japan (1) |
| Public health | 3 | Venezuela (1) Japan (2) |
| Others | 15 | China (2), Mexico (3), Taiwan (1), US (6), Russia (2), South Korea (1) |
| Total | 58 | |
| Source: data extracted from MADB, SPS database, 2011. | | |

In the remainder of this chapter, the results of the EU Trade and Investment Barrier Report (TIB report) and other relevant EU reports are summarised. The main source of information for the summary, however, is the TIB report that the European Commission published for the first time in 2011 and which thus provides the latest information currently available.[1] The TIB report contains an overview of key barriers that have been identified as hampering EU trading activities[2] and covers all products or groups of products. The summary of

[1] Recently, the European Commission commissioned two studies that investigate the trade and investment barriers for EU firms in Japan and the US respectively. They analyse the respective NTMs in great detail. Both of them include interviews with firms but not specifically agri-food producers or exporters. For their results, see Berden et al. (2009) and Sunesen et al. (2009).

[2] It is interesting to note that export duties and quotas, some of which were introduced following the recent economic and financial crisis, constitute an important topic in the TIB report. The export restrictions for raw materials, including agricultural products, implemented by China, Russia,

results in the present report focuses on agri-food products and the measures mentioned in the TIB report are matched with those in the systematic framework of the present report (see Figure 2.1). Note that comprehensive information about the trade barriers is not publically available, but officials in both capitals and embassies of the member states have access to the lists with details on the trade barriers.

Table 4.4 gives an overview of the measures and resulting issues faced by EU exporters when supplying agri-food products to markets of third countries and are reported in the respective EU reports. The measures are rather diverse, and it is therefore impossible to draw specific conclusions about NTMs from the EU perspective.

Some more general remarks will be made to conclude this section. Firstly, measures seem to be product and country specific. Products of animal origin generally seem to be relatively strongly affected by measures. From the EU perspective, the BSE crisis clearly dominates and still influences opportunities of exporting beef products to third countries. However, other diseases such as foot and mouth disease or avian flu have also caused trade barriers for exporters worldwide. Secondly, information about requirements has been mentioned as an important issue, particularly when regulations are subject to reform and thus changing. Changes in requirements should be reported and communicated to those affected to prevent the accumulation of information costs. The EU exporters' costs for obtaining and updating information about requirements seem to be considerable and it can be argued that small exporters face a particular burden.

Thirdly, requirements that do not conform to international standards are a particular issue. On the one hand, they may be stricter than EU requirements, but on the other hand the mere difference in requirements can actually mean that adjustments are necessary to export to the respective markets. The requirements demanded by countries that do not follow international standards are claimed to lack scientific justification, and there may thus be reason to doubt the requirements. More specifically, some protectionist intentions may underlie these requirements, aimed at supporting and protecting domestic producers from international competition.

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Argentina, Brazil and India are discussed. With regard to agricultural products, the European Commission mentions that Argentina for example restricts export of soya and beans (35% export tax) and is concerned about the negative effect for EU downstream animal producers and ultimately consumers, which would eventually need to pay higher prices.

| Table 4.4 | Overview of key barriers for EU agri-food exporters | | |
|---|---|---|---|
| **Partner country** | **Measure** | **Products (if mentioned)** | **Issue described** |
| Argentina | Certificates of free circulation for EU products | Canned peaches, cheese, premium food products, pasta and oil | Delay in issuing certificates such that containers were stopped and orders lost, loss of new orders |
| Canada | Import ban due to BSE | Beef | |
| Canada | Specific standards | Cheese | Compositional standards |
| Chile | Certification | | |
| China | Specific standards and related third party testing, certification | | Administrative burden, lack of transparency, standards not consistent with international standards |
| India | SPS requirements | Pork | Standards without scientific justification, non-recognition of certain common practices to preserve pig meat |
| India | SPS import restriction | Poultry, poultry products and pork | Import restriction for countries with low pathogenic Avian Influenza, lack of recognition international OIE standards |
| India | SPS requirements | Vegetables, fruit and timber | Stricter than international standards, lack of scientific justification, quarantine, requirement for risk analysis before import into India, for which process is unclear, long and costly |
| Indonesia | Halal regulation and certification of halal products | Meat | Total separation of halal and non-halal products, no contact at all, labelling |

| Table 4.4 | Overview of key barriers for EU agri-food exporters (continued) | | |
|---|---|---|---|
| **Partner country** | **Measure** | **Products (if mentioned)** | **Issue described** |
| Mexico | Labelling, import requirements for food | | |
| Norway | Product standard | Wines, spirits | Technical requirements |
| Russia | Custom procedures | | Administrative burden, not transparent, arbitrary valuation |
| Russia | SPS requirements (in particular residue levels for pesticides, antibiotics, micro-biological findings) | | Not consistent with international standards, lack of scientific justification, |
| Russia | Inspection and consequences of non-compliance | Meat | Lack of information, transparency, long-term suspension in case of one positive finding, not proportionate consequences of non-compliance |
| South Africa | SPS requirements | Pork | Import requirements for pork products |
| South Korea | SPS requirement | Meat | Import ban due to BSE, approval of EU firms (conformity assessment), certification of organic products |
| Switzerland | Animal welfare requirement | Live animals | Ban on road transport of live animals, animal welfare |
| Ukraine | SPS requirements | Water | |
| Ukraine | Labelling requirements | | GMO labelling |
| US | Border inspection | | 100% scanning of containers in US ports (pre-scanning before arrival in US port) to enhance security and prevent potential terrorist threats |

Source: European Commission (2010), (2011) and (2011a).

## 4.2 Interviews about NTMs from the perspective of Dutch exporters

In order to provide more detailed information about the NTM issues for Dutch agri-food exporters, interviews were conducted with experts at the former Dutch Ministry of Agriculture, Nature and Food Safety (LNV), now part of the Ministry of Economics, Agriculture and Innovation (EL&I), and sector representatives. The strategy used for conducting the interviews and the overall guideline of the questions are described in Appendix 5. The list of persons interviewed is provided in Appendix 6. In general, the interviews were as open as possible in order to ensure the necessary flexibility for optimal capture of the expert knowledge about measures and the specific combinations of products or product groups and export destinations

With regard to product types, a distinction was generally made between plant products and products of animal origin. This distinction seems to be important as it can be expected that plant and animal products are subject to different measures. As the results of the EU complaint register show, the difference between plant products, including fruit and vegetables, and animal products makes sense, whereby measures for animal products potentially cause more issues (compare section 4.1). Table 4.5 gives an overview of the results of the interviews. The information about the measures for plant products and products of animal origin which are an issue for Dutch exporters are presented by export destination, i.e. importing country that requires compliances with certain import requirements. The remainder of this section elaborates further on the major issues summarised in the table. Note that the specific NTM issues refer to the combinations of measure, product and exporting destination, but some general issues and trends have been identified in the interviews. While concerning Dutch exporters, the NTM issues reported may also affect exports from other EU member states and third countries in general. Furthermore, it should be noted that the NTM issues reported do not imply a discriminatory intention against Dutch exports, and the measures cannot generally be considered as protectionist. Such conclusions require a more in-depth and different kind of analysis.

| Table 4.5 | Overview of NTMs issues for Dutch exporters per export destination country, interview results | |
|---|---|---|
| **Export destination (importing country)** | **Plant products** | **Animal products** |
| Algeria | n/a | For dairy products: testing per consignment, systems to ensure quality and safety not recognised |
| Argentine, Brazil and other Latin American countries | Other concepts of plant health and safety<br>Import bans due to lack of recognising disease-free status | Labelling, transparency and information about changes in requirements<br>Firm approval, pre-listing |
| Australia | Quarantine list causes problems for perishable products, lack of transparency | Quarantine |
| Asian countries in general | Labelling in national languages, translation | Different process and product requirements (heating, conservation...) for dairy products, labelling in national languages, translation, costs to obtain information about requirements |
| China | Generally strict requirements, requirement of list of pest risk | Strict requirements, different concept that seems to be complex and difficult to understand from EU perspective, labelling in national languages |
| India | Process requirements (costly treatment for onions, apples and pears), lack of communication, information and transparency | MRLs for microbiological substances, strict requirements beyond international standards (codex) and lack of information and transparency |
| Indonesia | Process requirement (treatment of onions) | Halal requirement: separation of production, storage and distribution |

| Table 4.5 (continued) | Overview of NTMs issues for Dutch exporters per export destination country, interview results | |
|---|---|---|
| **Export destination (importing country)** | **Plant products** | **Animal products** |
| Japan | Changes in requirements, positive development since increased orientation towards international standards | Lack of transparency and information about changes in requirements |
| Korea | n/a | Label 'fit for Korea' - costs and practicability |
| Malaysia | n/a | Halal requirement: separation of production, storage and distribution |
| New Zealand | Quarantine, administrative burden and bureaucracy | Quarantine |
| Russia | Requirements do not comply with international standards, regionality issue, lack of transparency and information, duplication of testing and conformity assessment, different requirements for domestic and foreign products | MRLs for antibiotics and additives, changing requirements not communicated or transparent, duplication of testing and conformity assessment, firm approval, different concepts and lack of trust in process systems for quality and safety |
| South Africa | Different concept for MRLs: all forbidden, unless approved. | n/a |
| United States | Different concept and approach to regulating risk, strict process requirements (e.g. separate production lines for tomatoes, bell peppers), biodiversity measures: 100% checks at the border | Different concept and approach to regulation risks, more detailed HACCP, firm approval and biodiversity measures: 100% checks at the border |

Source: Information compiled from the interviews of experts.

*NTMs for plant products*

In the interviews, experts were asked which measures for which plant products imposed by which trade partner countries caused issues for Dutch exporters. With regard to firm level requirements, MRLs for pesticides were mentioned, while the lack of information and transparent communication about the requirements have apparently made exporting to some countries difficult, particularly Russia and India. With regard to measures for plant health, the requirement to provide separate production lines as well as storage and transportation in order to fully separate disease-free products from others creates costs for exporters in general. If there is no actual risk of contamination, such process requirements can be considered unnecessary and should thus be avoided. Besides product separation, some countries require product treatments that are not common practice in the EU and sometimes even not allowed. Indonesia, for example, requires onions to be treated with brome, but such treatment is prohibited in the EU. In order to circumvent the issue and continue to sell onions on the Indonesian market, Dutch exporters have been arranging the brome treatment in other countries outside the EU. In other cases, the authorities in the importing countries are unaware of the requirements imposed on foreign products so that the issue of information and transparency also applies from the side of the importing country. Here, it could be argued that exporters should not be confronted with requirements that are not known in the importing country and are thus not likely to be implemented or enforced domestically. With regard to testing and other conformity assessment, the issue of duplication of tests was mentioned as having an impact particularly on Dutch exports to Russia. The conformity assessment tests in the Netherlands, for example, have not been sufficient to export to Russia. Russian authorities do the same and/or other additional tests, and this appears to be an issue for Dutch exporters. Dutch exporters have to pay for these tests. In the Russian case, the testing has not always been transparent and delivered dubious results, which Dutch exporters and authorities were unable to clarify.

In the international trade of plant products (particularly trade in live plants), plant health certificates signal compliance with the requirements demanded by the importing countries and also give guarantees of the free of disease status. Quarantine requirements can be applied to provide an extra guarantee of the status 'disease free'. Australia and New Zealand were mentioned as imposing quarantine requirements. While quarantine requirements generally create costs for exporters, the duration of the quarantine and specific testing procedures can result in the loss of entire consignments of perishable plant products.

Exporting countries that lack the 'disease free' status face import bans on their products. However, trade partner countries may also not recognise the principle of regionality of the disease-free status, which is stipulated by the WTO and international standards. In this case, products from countries where specific diseases are prevalent are generally not accepted. The disease-free status could also be proved at local level. Dutch exporters of plant products tend to face this situation in Latin American countries that seem to have a different idea about plant health and safety, but also in Russia and the US. Taking the US example, Dutch exporters of bell peppers are not only required to prove the disease-free status of their facilities, they also need evidence that the neighbourhood within five kilometres is free of pests. Providing this kind of guarantee is impossible for individual firms, and Dutch exporters have thus been working together with the authorities to meet the requirement and ensure compliance as required. The Russian case is particularly interesting since the requirements demanded seem to have a protectionist effect. Russia requests that exporting countries qualify as free of Californian Thrips, but the disease is endemic in Russia. As such, domestic and foreign products are treated differently with different requirements being applied. Consequently, this can be considered a violation of the international agreement about treating domestic and foreign products as 'like products'.

Overall, the firm level adjustments to requirements are not generally problematic for Dutch producers and exporters of plant products. Since the Dutch domestic requirements, or more generally the EU requirements, are rather tight and known as such, buyers tend to trust Dutch exporters to deliver sound and safe products. Usually, Dutch firms have very good trading relations and often have their own branches if firms are large enough to engage in such multinational business activities. In the interviews it was mentioned several times that requirements for firms do not pose problems as long as the investments to adjust can be recouped by the sales in the foreign market. However, one main issue of NTMs relates to the lack of information and communication about requirements and changes of them, including up-dating. Such information costs can be very high for some firms and should generally not be underestimated.

*NTMs for products of animal origin*

With regard to product requirements, MRLs for antibiotics, additives and veterinary drugs were considered to be possible NTMs for Dutch exporters. The main issue here seems to arise from the fact that MRL requirements are different and usually stricter than the international standards. The MRLs set by Russia and India were mentioned as being particularly strict and diverging from

the international standards. Import requirements that do not conform to international standards created costs for Dutch exporters, whereby obtaining the respective information and up-dates thereof can be a considerable cost item as already mentioned. The issue of information costs and the underlying communication and transparency problems were reported for basically the same countries as those countries reported when looking at trade with plant products. Besides MRL requirements, labelling products in the national languages and the different information content required was also mentioned as a problem, especially the labelling of plant products destined for Brazil, China and other Asian countries.

For animal products, process requirements that control and monitor the entire production and processing process play an important role. In the EU like in other countries, the system of Hazard Analysis and Critical Control Points (HACCP) constitutes a major requirement for businesses to operate in the agri-food sector. While applying HACCP according to European good practice, Dutch exporters of animal products have been facing more detailed and stricter HACCP requirements when exporting to the US. These HACCP requirements have meant additional costs for Dutch exporters that have to comply if they want to sell their products on the US market. Other process requirements emphasised by the experts interviewed are the requirements for halal meat and meat products. On the one hand, halal requirements ensure the correct application of specific slaughtering practices, but on the other hand they also ensure the separation of the production, storage and distribution of halal meat and the meat produced in different ways. While some countries impose them (e.g. Malaysia), halal requirements are generally demanded by the private sector in the respective countries. They are thus private sector requirements and can be considered to relate to TBT rather than SPS matters because they aim at quality aspects beyond animal health or food safety. Halal requirements seem to be the only private sector requirements that were mentioned as causing issues for Dutch exports and thus hampering trade with the respective countries.

Conformity assessment requirements were mentioned as another main NTM issue in the trade of animal products. As opposed to conformity assessment in the trade of plant products, firm approval has been used by importing countries (e.g. China, Latin American countries, US and Russia) to ensure that sanitary and hygiene requirements are met. Firm approval means that firms are individually checked and those complying with the respective requirements appear on a list of approved firms. Only those firms listed are allowed to export. Usually, the respective importing country is somehow involved in the firm level

inspections in the exporting country, and the food operating firms incur the costs of the inspections by foreign delegations, including possible translations.

With regard to conformity assessment, problems were also mentioned regarding countries following different approaches of quality and safety controls. In many countries, process control and the monitoring of production processes are important methods of conformity assessment, but some countries rely on end-product testing rather than on controlling and monitoring production process. They also require end-product testing of foreign products irrespective of the quality and safety control system existing in the exporting country. The requirement of end-product testing seems to have become an issue for Dutch exporters of animal products, in particular for Dutch exporters of dairy products, and Algeria and Russia were specifically mentioned as requiring such tests on end-products per batch of consignment.

Veterinary and animal health certificates are issued in trade of animal products. These certificates are usually not specific to the export destination and may not be specific to the product either. This means that standard veterinary and animal health certificates guaranteeing general compliance with requirements tend to be sufficient for Dutch firms to export to most countries. In other cases, however, there are specific arrangements between the Netherlands and trade partner countries, which are based on either business agreement or governmental bilateral agreement. Overall, there seems to be a trend towards more specific certificates. Standard certificates are being less and less accepted, while the use of specific and detailed certificates is increasing.

*How to solve and overcome NTM issues?*

There are two general strategies for solving NTM issues and overcoming possible barriers due to NTMs: harmonisation and mutual recognition. The two strategies of harmonisation and mutual recognition respectively offer solutions for dealing with differences of requirements across countries. The harmonisation of requirements involves countries agreeing on common standards, which are usually minimum standards. In the context of international trade, such common standards are, for example, provided by the Codex Alimentarius, the International Animal Health Organisation and the International Plant Protection Convention. In contrast, mutual recognition means that countries mutually recognise the products of trade partner countries as being safe and of the desired quality level. Thus, specific own requirements are not imposed on foreign products and there is considerable trust in the food safety and quality system of the trade partner country. While establishing and applying

international standards may be a promising option, countries differ and thus different requirements generally seem to make sense and are in fact legitimate. Other issues of harmonisation are, for example, the possibility of safeguard options and the occurrences of certain situations where countries would need to fall back on imposing their own and specific requirements.

In the interviews, experts and sector representatives did not express a clear preference about how best to solve NTM issues. Both strategies have pros and cons, but from the Dutch perspective harmonisation does not seem to be unanimously considered to be a favourable solution. This is because harmonisation would establish the same trade conditions for all countries which would reduce the benefit of the long trading history of Dutch exporters and their considerable efforts towards building trustworthy relations and arrangements with partner countries. Having said that, a general orientation towards international standards is of course in the interest of Dutch exporters and supported.

The issue of regulations that actually target 'non-issues' was mentioned in the interviews as causing an unnecessary burden and costs for exporters but also for firms in general. 'Non-issue' regulations are, for example, due to out-dated requirements that do not fit the current and good practice standard production technology or irrelevant requirements. 'Non-issue' regulations should generally be avoided, and this does not only apply to the import requirements of non-EU countries but also applies to domestic as well as EU regulations. More generally, regulatory activities should include dialogue with businesses and possibly scientific experts on impact and/or assessment, for example. Depending on the regulation under review, government and private involvement in an appropriate balance could consolidate existing regulations and bring about better new regulations, leading to fewer barriers for businesses and facilitating trade between countries.

While there is still room for improvement, enormous achievements in the information exchange about requirements and thus communication with China and Japan have been made. The dialogue with Russia and India could be enhanced so as to overcome trade-restricting NTM issues. Here, one important question is how to deal with the diverging ideas about and approaches to risk regulations and controls to ensure plant and animal health as well as food safety, including assessment practices. In this context, harmonisation efforts in terms of acknowledging common practices and procedures may be particularly relevant. This also includes efforts to facilitate international agreements about the conditions for regaining the disease-free status after pest infestations or outbreaks, for example. Many of the NTM issues mentioned in the interviews but

also reported as complaints in the EU market access database relate to incidences of pests and disease. The number of such issues seems to be increasing. The case of a nematode infestation serves as an example to demonstrate the issue at hand: following an infestation, countries only regain the pest-free status after 12 years; for exporters, this essentially means no trade in the products affected or related groups of products for 12 years. To receive the pest-free status, the pests naturally need to have been eradicated and/or a plant protection plan needs to be in place in the country.

The interviews about NTMs in plant as well as animal trade highlighted the overall trend whereby exports from industrialised countries to developing or emerging countries could be increasingly be affected by NTMs. This could be detrimental for Dutch exporters as well as EU exporters for which trade with these countries is important. NTM issues can be expected to increase as governments in developing and emerging countries have started to change their requirements for export products to be sold on their market or to be further processed before being re-exported. In this regard, people in developing and emerging countries are becoming increasingly aware of food safety and quality issues, just like in industrialised countries, and governments have been taking action to improve domestic quality and safety control system. More and tighter requirements for both domestic and foreign products are consequently being implemented, and this trend can be expected to continue. This could lead to more NTM issues that potentially hamper trade for exporters from industrialised countries.[1]

[1] Note that this would change the currently prevailing situation where exporters from developing countries have relatively more difficulties and incur very high costs due to compliance with the tight requirements demanded by the private sector and governments of industrialised countries.

# 5 Discussion and concluding remarks

Policy-makers are interested in information to identify incidences of NTMs and issues as well as to obtain an idea about the impact of NTMs in terms of trade or economic loss, for example. One main goal is to resolve NTM issues, thereby facilitating trade and removing unnecessary burdens and costs for exporters. In order to identify NTMs, two approaches are followed in this report: a shift-and-shares analysis of trade data and interviews of experts dealing with NTM issues for Dutch agri-food exporters. This chapter brings together the results of the two approaches in order to provide input for prioritising and bundling efforts to further investigate and provide insights in order to tackle NTMs from the Dutch perspective. This is followed by an overall summary and conclusion.

## 5.1 Combining the results of NTM incidences

Using the results of the shift-and-share analysis and the interviews, Table 5.1 gives an overview of the measures and products most affected. The combinations of measures and products could be used to prioritise efforts to further investigate and possibly resolve the NTM issues for Dutch exporters. Note that a one-to-one matching of products and measures is not possible; although the products identified in the shift-and-share analysis are presented at HS6 level (HS code), providing considerable product detail, the measures identified in the interviews do not refer to products at this detailed level.

The lists of different types of products in Table 5.1 are generated by combining the results from the shift-and-share analysis in a ranking according to their importance in terms of trade value. For the indicator of trade stops, the number of observations of no trade is used to determine the importance or rather significance of the measure. The more trade stops are observed, the more significant the measures.
The following trade indicators are used for the ranking as they reveal the most relevant clues about NTM incidences:

- Relative export performance (see Table A4): note that only those products for which the Dutch exports to non-EU third countries decrease more than the corresponding exports from the other member states are considered in the ranking.

- Combination of trade stops and no trade: this comprises a combination of trade stops (see Table A6) and no trade of Dutch exports while observing exports to the EU26 (see Table A7).
- Decrease in Dutch exports to non-EU countries, while increasing Dutch exports to the EU26 (see Table A9): this refers to situation 3 as described in section 3.2.

*Which products are affected by NTMs?*
As shown in Table 5.1, different types of products are affected. The first thirty-five products identified in the ranking are listed. Looking at the number of detailed product codes, live animals, meat and fish appear in the top positions of the ranking. With regard to plant products, live plants, seeds or flowers are found to be most affected, probably due phytosanitary requirements. The interview results point towards the same product categories. Overall, some of the products identified can be considered to be risky products in trade, such as live plants and animals due to the spreading of diseases and pests, or perishable, such as fresh meat, fish and some fruits. Other products seem to relate to specific issues and can thus be considered as being particularly sensitive, such as diseases (for example BSE).

*Which measures are barriers for Dutch exporters?*
According to the interviews, product and process requirements demanded by importing countries do not usually cause major problems for Dutch agri-food exports as long as sales in the foreign market pay the costs of compliance. In general, it can be argued that the Dutch and EU requirements are rather high, and the requirements of other countries thus tend to be less demanding than the domestic and/or EU requirements. In this sense, the high Dutch (EU) requirements may be a benefit when it comes to complying with the requirements of third countries outside the EU. However, in the interviews some requirements are mentioned as being barriers for Dutch exporters: for example the requirement of separating production lines to keep compliant and non-compliant products (e.g. halhal meat and other meat) apart or requirements that go beyond international standards. for example, the MRLs set by the Codex Alimentarius. In addition, conformity assessment, in particular establishment approval and end-of the product testing, and export certificates seem to have caused obstacles.

| Table 5.1 | Overview of measures and products most affected - Dutch export point of view |
|---|---|
| **Products (HS6 codes) (result of shift-and-share analysis)** | **Measures for animal products (result of expert interviews)** |
| **Live animal:** 010631 - Live birds of prey, 010290 - Live bovine animals (excl. pure-bred for breeding), 010593 - Live fowl of the species gallus domesticus, weighing >2 kg, 010592 - Live fowl of the species gallus domesticus, >185 g but <= 2 kg<br>**Meat products:** 020820 - Fresh, chilled or frozen frogs' legs, 020230 - Boneless, frozen meat from bovine animals, 160242 - Prepared or preserved shoulders and cuts thereof of swine, 020410 - Fresh or chilled lamb carcasses and 1/2 carcasses, 020641 - Frozen edible livers of swine<br>**Fish:** 030232 - Fresh or chilled yellow fin tuna, 030265 - Fresh or chilled sharks, 030239 - Fresh or chilled tuna 030741 - Live, fresh or chilled cuttlefish sepia, 030490 - Frozen fish meat, (not fillets), 030491 - Frozen meat of swordfish, 030211 - Fresh or chilled trout: salmo trutta<br>**Dairy:** 040620 - Grated or powdered cheese, 040130 - Milk and cream of a fat content by weight of >6%, not concentrated nor containing added sugar or other sweetening matter | – MRLs exceeding international standards, Codex Alimentarius<br>– Separate production lines due to halal requirements or other requirements (country-specific)<br>– Conformity assessment: firm approval by inspections of the importing country & end-product testing<br>– Labelling in national language of the importing country<br>– Bans with regard to animal health: more specifically disease free status<br>– Export certificates with specific details about requirements, leading to issues about guarantee and liability |
| **Plant seeds & bulbs & flowers**: 120750 - Mustard seeds, 120760 - Safflower seeds, 060310 - Fresh cut flowers and flower buds, 100510 - Maize seed, 060314 - Fresh cut chrysanthemums & buds, 060312 - Fresh cut carnations & buds<br>**Other plant products:** 121020 - Hop cones, ground, powdered or pellets; 121010 - Hop cones, fresh or dried, 440795 - Ash, sawn or chipped lengthwise, sliced or peeled, 440921 - Bamboo, incl. strips and friezes for parquet flooring<br>**Fruit & vegetables:** 070490 - Fresh or chilled cabbages (excl. cauliflowers…), 070930 - Fresh or chilled aubergines, 071390 - Dried, shelled leguminous vegetables, (excl. peas, chickpeas…), 070410 - Fresh or chilled cauliflowers and headed broccoli, 080590 - Fresh or dried citrus fruit (excl. oranges…) 200210 - Tomatoes, whole or in pieces, 200390 - Mushrooms | **Measures for plant products (result of expert interviews)**<br>– MRLs exceeding international standards, Codex Alimentarius<br>– Specific treatment to prevent pests<br>– Labelling in national language of the importing country<br>– Quarantine and issue of disease-free status |

## 5.2 Concluding remarks

This report looked at NTMs from the perspective of Dutch agri-food exporters that supply markets of non-EU countries. For the systematic analysis, a framework of NTMs was developed in order to specifically analyse standards and regulation of food quality and safety in the trade context. The framework ensured the common understanding of the measures under review, which was particularly important for the interviews conducted. Focusing on the Dutch perspective, several SPS experts and sector representatives were asked about measures that have affected Dutch exports. The goal was to find out about relevant combinations of measures, products and export destinations from the Dutch perspective. In addition, the EU register of complaints was evaluated, and this evaluation added first-hand information about NTM issues for EU exporters, including Dutch exporters.

Besides the analysis of the interviews and the EU complaint register, trade data was analysed by applying a set of indicators that reflect the trade performance and potential trade of Dutch exporters during the period 2004-2009. More specifically, the indicators capture the absolute and relative trade performance, incidences of no trade and export stops as well as a free-trade comparison for which the Dutch exports to the EU26 were taken as the benchmark. While based on assumptions, the aforementioned indicators point towards potential NTM incidences for Dutch exporters, as reflected by the trade data. In the trade data analysis, the other EU member states were for example considered to be direct competitors of Dutch exporters, and the EU common market for agri-food products was assumed to be free without NTMs being in place and functioning as trade barriers across the member states.

The analysis of the indicators generated lists of Dutch export products that could be subject to NTMs imposed by non-EU countries. These lists of products can be used to determine cases for further analysis but could also be used to help prioritise efforts by pointing out which products are most affected. Given the assumptions and methodological challenges, the results must be interpreted and used with great care. Further analysis would be necessary to statistically underpin the results. Moreover, the products identified as being subject to NTMs could, for example, be further examined with regard to which importing countries actually apply which measures and which problems evolve for Dutch exporters. In this regard, the identification of NTM incidences constitutes the first step for a more in-depth and possibly quantitative analysis of NTMs.

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# Appendix 1

## List of HS codes of agri-food products (2-digits)

| |
|---|
| 01 - Live animals; animal products |
| 02 - Meat and edible meat offal |
| 03 - Fish and crustaceans, molluscs and other aquatic invertebrates |
| 04 - Dairy produce; birds' eggs; natural honey; edible products of animal origin |
| 05 - Products of animal origin, not elsewhere specified or included |
| 06 - Live trees and other plants; bulbs, roots and the like; cut flowers and ornamental foliage |
| 07 - Edible vegetables and certain roots and tubers |
| 08 - Edible fruit and nuts; peel of citrus fruit or melons |
| 09 - Coffee, tea, mate and spices |
| 10 - Cereals |
| 11 - Products of the milling industry; malt; starches; inulin; wheat gluten |
| 12 - Oil seeds and oleaginous fruits; miscellaneous grains, seeds and fruit; industrial.. |
| 13 - Lac; gums, resins and other vegetable saps and extracts |
| 14 - Vegetable plaiting materials; vegetable products not elsewhere specified or included |
| 15 - Animal or vegetable fats and oils and their cleavage products; prepared edible fats |
| 16 - Preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates |
| 17 - Sugars and sugar confectionery |
| 18 - Cocoa and cocoa preparations |
| 19 - Preparations of cereals, flour, starch or milk; pastry cooks' products |
| 20 - Preparations of vegetables, fruit, nuts or other parts of plants |
| 21 - Miscellaneous edible preparations |
| 22 - Beverages, spirits and vinegar |
| 23 - Residues and waste from the food industries; prepared animal fodder |
| 24 - Tobacco and manufactured tobacco substitutes |
| 33 - Oils & resinoids, perfumery, cosmetics or toilet preparations |
| 35 - Albuminoidal Sub., starches, glues, enzymes |
| 40 - Rubbers and articles thereof |
| 41 - Raw hides, skins and leather |
| 43 - Fur skins, artificial fur, manufactures |
| 44 - Wood, articles of wood, wood charcoal |
| 45 - Cork and article of cork |
| 50- -Silk, incl. yarns and woven fabrics thereof |
| 51 - Wool and fine or coarse animal hair, incl. yarn, woven fabrics thereof |
| 52 - Cotton, incl. yarns and woven fabrics thereof |

# Appendix 2

## Summary of trade indicators used in the shift-and-share analysis

*Indicator of relative trade performance*

There is a potential NTM issue if $\Delta\left(\frac{x_{i,NL,nonEU}}{x_{i,EU26,nonEU}}\right) < 0$ for $\Delta\, x_{i,\,EU26,\,nonEU} > 0$

where $x_{i,\,NL,\,nonEU}$ refers to Dutch exports of product *i* to non-EU countries, and $x_{i,\,EU26,\,nonEU}$ refers to the respective exports from the other EU member states (EU26) to non-EU countries.

*Indicator of trade stop and no trade*

There is a potential NTM issue if $x_{i,NL,nonEU} = 0$ for $x_{i,\,EU26,\,nonEU} > 0$

where $x_{i,\,NL,\,nonEU}$ refers to Dutch exports of product *i* to non-EU countries, and $x_{i,\,EU26,\,nonEU}$ refers to the respective exports from the other EU member states (EU26) to non-EU countries.

*Indicator of using exports to the EU26 as a benchmark for free trade*

There is a potential NTM issue if $\Delta x_{i,NL,nonEU} \leq 0$ for $\Delta\, x_{i,\,NL,\,EU26} > 0$

where $x_{i,\,NL,\,nonEU}$ refers to Dutch exports of product *i* to non-EU countries, and $x_{i,\,NL,\,EU26}$ refers to the respective Dutch exports to the other EU member states (EU26).

# Appendix 3

## EU Market Access Database (MADB)

Following the European Commission strategy to improve EU exporters' access to foreign markets (market access strategy), the MADB database was developed to support EU exporters in their trading activities. In addition to information about the import requirements of trading partner countries, the MADB database collects concerns and complaints about a range of measures that are considered to restrict EU exports. The overall aim of providing this information in the database is to bring more transparency to the trade issues faced by EU exporters and to facilitate the efforts to resolve them. The MADB database consists of two data sets: the trade barrier database and the SPS database. While overlapping to a certain extent, these two data sets must be considered separately as they report different information on trade barriers for EU exports. The data is publically available at www.madb.europa.eu.

The trade barrier database collects complaints that individual EU exporters, groups or associations of producers or the EU member states report to the European Commission. Note that the complaints must clearly demonstrate evidence that the respective measure does not conform to international rules and causes commercial harm to a European operation, either within the EU or in third countries. After an investigation by the European Commission, relevant measures are listed in the MADB trade barrier database. The SPS database contains information reported by the agri-food industry, the member states, Services and Delegations of the European Commission, and also covers relevant SPS notifications from the WTO. In contrast to the trade barrier database, the SPS database is not based on individual complaints. The trade barrier database defines seven categories of measures that relate to traditional trade policy instruments (tariffs and duties, trade defence instruments), other export-related measures (investment-related barriers, intellectual property rights, service-related and other measures) and NTMs.

There are several limitations of the MADB information. For example, the database is clearly biased due to selection bias in the reporting of the trade barriers. This particularly concerns the complaint register of the trade barriers database as only reported trade barriers are included and the reported issues are only listed after the European Commission's evaluation.

# Appendix 4

## Approach and guideline for the questions in the interviews

For the interviews, it was decided to have a representative picture of the general agri-food sector in the Netherlands, thus including both plant and animal products. The table below shows which institutions and organisations were contacted. For the list of persons interviewed, see Appendix 5. Note that the Dutch fishery sector as well as the Dutch animal feed industry is not covered.

**Tabel A4.1 Institutions and organisations contacted for the interviews**

| | **Animal products** | **Plant products** |
|---|---|---|
| Ministry for Economics, Agriculture and Innovation (EL&I, previous LNV) | Phytosanitary officers, exports on plant health | Veterinary officers, experts for animal health |
| Sector or industry representatives | Veterinary information point (VIP), part of the board of live livestock, meat and eggs (Productschap Vee, Vlees en Eieren)<br>Dutch dairy board (Productschap Zuivel) | Product board for horticulture (Productschap Tuinbouw)<br>Dutch Association of Fruit and Vegetable Traders |

In the interviews, the framework of NTMs as requirements in international agri-food trade was first introduced so that a common definition and understanding of the measures under review was achieved. This was particularly important for helping the interviewer explain the purpose of the systematic analysis to be conducted and ask the respective questions, including the reasoning behind them. This first introduction also ensured that the persons interviewed understood the questions correctly and could provide the respective answers.

The interviews were as open and flexible as possible so that the interviewees could freely share their export knowledge and give their opinions as much as possible. As a guideline for the interviews, the following general structure was used:

- General question about measure-product-country combinations of NTMs: which requirement according to the framework introduced? Which products are affected by which measure? Which importing countries impose which measure for which product?
- What is the actual problem from the Dutch perspective?
- How could the problems be tackled and hopefully resolved?
- What is the role of private standards as opposed to governmental requirements for Dutch exports?

# Appendix 5

## Persons interviewed about NTMs from the Dutch perspective

*NTMs for plant products*

Ton van Arnheim, sanitary and phytosanitary officers, expert on plant health, Ministry for Economics, Agriculture and Innovation, EL&I (previous LNV)
Bert Rikken, sanitary and phytosanitary officers, expert on plant health, Ministry for Economics, Agriculture and Innovation, EL&I (previous LNV)
Peter Verbass, staff executive, Frugi Venta, Fruit and Vegetables Trade Association (representing about 80% of fruit and vegetable traders in the Netherlands)

*NTMs for products of animal origin*

Inge Hardenberg, veterinary and animal health experts, Ministry for Economics, Agriculture and Innovation, EL&I (previous LNV)
Diny Classen, veterinary and animal health experts, Ministry for Economics, Agriculture and Innovation, EL&I (previous LNV)
Ludo Visser, veterinary and animal health experts, Ministry for Economics, Agriculture and Innovation, EL&I (previous LNV)
Rob H. Oost, officer legislation and quality affairs, Dutch Dairy Board (in Dutch: Productschap Zuivel)
Karen Spruijt-de Gelder, policy officer, Dutch Dairy Board (in Dutch: Productschap Zuivel)
Tjeerd den Hollander, Veterinary Information Point (VIP), Dutch Board for livestock, meat and eggs (in Dutch: Productschap Vee, Vlees en Eieren)
Nicole Roeters, Veterinary Information Point (VIP), Dutch Board for livestock, meat and eggs (in Dutch: Productschap Vee, Vlees en Eieren)

# Appendix 6

## Tables of results of the trade data analysis

| Table A6.1 | Decrease in NL agri-food exports to non-EU countries, average value for the period 2004-2009 | |
|---|---|---|
| **HS6 product code** | **Change of NL exports to non-EU countries (extra EU)** | |
| | **1000 Euro** | **% change** |
| 060310 - Fresh cut flowers and flower buds, for bouquets or for ornamental purposes | -71,055 | not defined |
| 030350 - Frozen herrings 'clupea harengus, clupea pallasii' | -13,932 | not defined |
| 220300 - Beer made from malt | -13,498 | -1,7% |
| 030374 - Frozen mackerel 'scomber scombrus, scomber australasicus, scomber japonicus' | -9,542 | -34.3% |
| 040510 - Butter (excl. dehydrated butter and ghee) | -9,395 | -14.8% |
| 040221 - Milk and cream in solid forms, of a fat content by weight of >1.5%, unsweetened | -8,574 | -4.4% |
| 220860 - Vodka | -8,550 | -18.5% |
| 151590 - Fixed vegetable fats and oils and their fractions, whether or not refined, but not chemically modified (excl. soy bean, groundnut, olive, palm, sunflower seed, safflower, cotton seed, coconut, palm kernel, babassu, rape, colza and mustard | -8,442 | -60.4% |
| 180500 - Cocoa powder, not containing added sugar or other sweetening matter | -8,106 | -6.4% |
| 230400 – Oil cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of soybean oil | -7,053 | -17.5% |
| 070960 - Fresh or chilled fruits of the genus capsicum or pimento | -6,740 | -5.2% |
| 110100 - Wheat or meslin flour | -6,291 | -114.7% |
| 210610 - Protein concentrates and textured protein substances | -5,994 | -49.2% |

| Table A6.1 (continued) | Decrease in NL agri-food exports to non-EU countries, average value for the period 2004-2009 | |
|---|---|---|
| **HS6 product code** | **Change of NL exports to non-EU countries (extra EU)** | |
| | **1000 Euro** | **% change** |
| 151620 - Vegetable fats and oils and their fractions, partly or wholly hydrogenated, inter-esterified, re-esterified or elaidinised, whether or not refined, but not further prepared | -5,591 | -31.9% |
| 040590 - Fats and oils derived from milk, and dehydrated butter… | -5,380 | -17.1% |
| 150790 - Soybean oil and its fractions, whether or not refined (excl. chemically modified and crude) | -4,497 | -34.1% |
| 350790 - Enzymes and prepared enzymes n.e.s. (excl. rennet and concentrates thereof) | -3,916 | -8.9% |
| 030420 - Frozen fish fillets | -3,894 | not defined |
| 170230 - Glucose in solid form and glucose syrup, not containing added flavouring or colouring matter and not containing fructose or containing in the dry state, <20% by weight of fructose | -3,847 | -28.3% |
| 190590 - Bread, pastry, cakes, biscuits and other bakers' wares, whether or not containing cocoa; communion wafers, empty sachets of a kind suitable for pharmaceutical use, sealing wafers, rice paper and similar products (excl. crispbread, gingerbr | -3,080 | -9.0% |
| 130232 - Mucilages and thickeners, derived from locust beans, locust bean seeds or guar seeds, whether or not modified | -3,050 | -49.4% |
| 070200 - Tomatoes, fresh or chilled | -2,967 | -5.2% |
| 070490 - Fresh or chilled cabbages, kohlrabi, kale and similar edible brassicas (excl. cauliflowers, headed broccoli and brussels sprouts) | -2,886 | -34.6% |
| 010190 - Live horses, asses, mules and hinnies (excl. pure-bred for breeding) | -2,445 | -7.6% |
| 160249 - Prepared or preserved meat and offal of swine, incl. mixtures (excl. hams, shoulders and cuts…) | -2,014 | -48.4% |

| Table A6.1 (continued) | Decrease in NL agri-food exports to non-EU countries, average value for the period 2004-2009 | |
|---|---|---|
| **HS6 product code** | **Change of NL exports to non-EU countries (extra EU)** | |
| | **1000 Euro** | **% change** |
| 151319 - Coconut oil and its fractions, whether or not refined, but not chemically modified (excl. crude) | -1,750 | -36.6% |
| 151710 - Margarine (excl. liquid) | -1,739 | -6.2% |
| 020322 - Frozen hams, shoulders and cuts thereof, unboned | -1,712 | -29.0% |
| 090121 - Roasted coffee (excl. decaffeinated) | -1,653 | -14.4% |
| 180620 - Chocolate and other food preparations containing cocoa, in blocks, slabs or bars weighing >2 kg or in liquid, paste, powder, granular or other bulk form, in containers or immediate packaging of a content >2 kg (excl. cocoa powder) | -1,460 | -11.2% |
| 350211 - Egg albumin, dried 'e.g. in sheets, scales, flakes, powder' | -1,417 | -11.2% |
| 130219 - Vegetable saps and extracts (excl. liquorice, hops, pryrethrum, roots of plants containing rotenone and opium) | -1,353 | -36.0% |
| 152000 - Glycerol 'glycerine', whether or not pure; glycerol waters and glycerol lyes | -1,306 | -80.2% |
| 060210 - Unrooted cuttings and slips | -1,296 | -15.0% |
| 100300 - Barley | -1,287 | -145168.6% |

Note: Some percentage changes are not defined due to zero in the denominator or nominator. The listing is ordered according to the size in the decrease in NL exports to non-EU countries, and the 25 products with the largest decrease are listed. The complete list of products is available on request.
Source: own calculation using deflated ComExt trade data.

| Table A6.2 | Decrease in NL agri-food exports to the EU26, average value for period 2004-2009 | |
|---|---|---|
| **HS6 product code** | **Change of NL exports to the EU26 (intra EU)** | |
| | **1000 Euro** | **% change** |
| 060310 - Fresh cut flowers and flower buds, for bouquets or for ornamental purposes | -418,129 | not defined |
| 240220 - Cigarettes containing tobacco | -124,936 | -6.9% |
| 030420 - Frozen fish fillets | -51,574 | not defined |
| 040690 - Cheese (excl. fresh cheese, incl. whey cheese, not fermented, curd, processed cheese, blue-veined cheese, and grated or powdered cheese) | -40,417 | -4.6% |
| 030410 - Fresh or chilled fillets and other fish meat, whether or not minced | -35,826 | not defined |
| 021019 - Meat of swine, salted, in brine, dried or smoked (excl. unboned hams, shoulders and cuts thereof, and bellies and cuts | -33,381 | -10.8% |
| 240210 - Cigars, cheroots and cigarillos containing tobacco | -22,221 | -11.7% |
| 040510 - Butter (excl. dehydrated butter and ghee) | -21,693 | -10.9% |
| 020312 - Fresh or chilled hams, shoulders and cuts thereof of swine, unboned | -18,208 | -4.7% |
| 180500 - Cocoa powder, not containing added sugar or other sweetening matter | -17,905 | -11.3% |
| 120100 - Soya beans, whether or not broken | -16,023 | -6.3% |
| 330210 - Mixtures of odoriferous substances and mixtures, incl. alcoholic solutions, based on one or more of these substances, of a kind used as raw materials in the food or drink industries | -15,253 | -12.7% |
| 240310 - Smoking tobacco with or without a proportion of tobacco substitutes | -13,494 | -4.9% |
| 080810 - Fresh apples | -11,137 | -6.6% |
| 200590 - Vegetables and mixtures of vegetables, prepared or preserved otherwise than by vinegar or acetic acid (excl. frozen, homogenised vegetables of subheading 2005 10, and tomatoes, mushrooms, truffles, potatoes, sauerkraut, peas 'pisum sativum | -10,267 | not defined |

| Table A6.2 (continued) | Decrease in NL agri-food exports to the EU26, average value for period 2004-2009 | |
|---|---|---|
| **HS6 product code** | **Change of NL exports to the EU26 (intra EU)** | |
| | **1000 Euro** | **% change** |
| 170230 - Glucose in solid form and glucose syrup, not containing added flavouring or colouring matter and not containing fructose or containing in the dry state, <20% by weight of fructose | -8,612 | -20.2% |
| 010592 - Live fowl of the species gallus domesticus, weighing >185 g but <= 2 kg | -8,548 | not defined |
| 040210 - Milk and cream in solid forms, of a fat content by weight of =<1.5% | -8,242 | -19.9% |
| 440920 - Wood, incl. blocks, strips and friezes for parquet flooring, not assembled, moulded, grooved, tongued, rebated, … | -8,201 | not defined |
| 200911 - Frozen orange juice, whether or not containing added sugar or other sweetening matter (excl. fermented or containing spirit) | -7,891 | -43.1% |
| 060110 - Bulbs, tubers, tuberous roots, corms, crowns and rhizomes, dormant (excl. those used for human consumption and chicory plants and roots) | -7,678 | -3.6% |
| 410150 - Whole raw hides and skins of bovine 'incl. buffalo' or equine animals, whether or not dehaired or split, of a weight per skin >16 kg, fresh, or salted, dried, limed, pickled or otherwise preserved (excl. tanned, parchment-dressed or further prepared)' | -7,656 | -26.1% |
| 030223 - Fresh or chilled sole 'solea spp.' | -6,082 | -8.8% |
| 030530 - Fish fillets, dried, salted or in brine, not smoked | -6,036 | -20.8% |
| 070190 - Fresh or chilled potatoes (excl. seed) | -5,445 | -12.5% |
| 030360 - Frozen cod 'gadus morhua, gadus ogac and gadus macrocephalus' | -5,415 | not defined |
| 030562 - Cod 'gadus morhua, gadus ogac, gadus macrocephalus', salted or in brine only (excl. fillets) | -5,085 | -11.2% |
| 110812 - Maize starch | -4,846 | -23.2% |

| Table A6.2 (continued) | Decrease in NL agri-food exports to the EU26, average value for period 2004-2009 | |
|---|---|---|
| **HS6 product code** | **Change of NL exports to the EU26 (intra EU)** | |
| | **1000 Euro** | **% change** |
| 030731 - Live, fresh or chilled mussels 'mytilus spp., perna spp.', with or without shell | -4,170 | -5.4% |
| 040590 - Fats and oils derived from milk, and dehydrated butter and ghee (excl. natural butter, recombined butter and whey butter) | -4,120 | -14.8% |
| 070960 - Fresh or chilled fruits of the genus capsicum or pimenta | -4,024 | -1.7% |
| 220870 - Liqueurs and cordials | -4,000 | -8.2% |
| 230230 - Bran, sharps and other residues of wheat, whether or not in the form of pellets, derived from sifting, milling or other working | -3,907 | -20.2% |
| 160590 - Molluscs and aquatic invertebrates, prepared or preserved | -3,861 | -12.1% |
| 040390 - Buttermilk, curdled milk and cream, kephir and other fermented or acidified milk and cream, whether or not concentrated or flavoured or containing added sugar or other sweetening matter, fruits, nuts or cocoa (excl. yogurt) | -3,852 | -26.9% |

Note: Some percentage changes are not defined due to zero in the denominator or nominator. The listing is ordered according to the size of the decrease in NL exports to the EU26, and the 25 products with the largest decrease are listed. The complete list of products is available on request.
Source: own calculation using deflated ComExt trade data.

| Table A6.3 | Share of Dutch exports in EU26 exports to non-EU countries and average change, 2004-2009 | |
|---|---|---|
| **HS6 product code** | **Average share of NL exports in EU exports to non-EU countries (extra-EU)** | **Average annual change of share** |
| 230210 - Bran, sharps and other residues of maize 'corn', whether or not in the form of pellets, derived from sifting, milling or other working | 0.1 | -13.8 |
| 170260 - Fructose in solid form and fructose syrup not containing added flavouring or colouring matter and containing, in the dry state,>50%... | 42.5 | -13.6 |
| 230650 – Oil cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of coconut or copra | 10.7 | -11.1 |
| 230500 – Oil cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of groundnut oil | 6.8 | -10.0 |
| 071151 - Mushrooms of the genus 'agaricus', provisionally preserved, e.g., by sulphur dioxide gas, in brine, in sulphur water or in other preservative solutions, but unsuitable in that state for immediate consumption' | 7.6 | -9.6 |
| 030231 - Fresh or chilled albacore or long-finned tuna | 14.6 | -8.9 |
| 151590 - Fixed vegetable fats and oils and their fractions, whether or not refined, but not chemically modified (excl. soybean, groundnut, olive, palm, sunflower-seed, safflower, cotton seed, coconut, palm kernel, babassu, rape, colza and mustard | 14.3 | -8.7 |
| 152000 - Glycerol 'glycerine', whether or not pure; glycerol waters and glycerol lyes | 33.1 | -8.5 |
| 070490 - Fresh or chilled cabbages, kohlrabi, kale and similar edible brassicas (excl. cauliflowers, headed broccoli and brussels sprouts) | 26.7 | -8.0 |
| 030222 - Fresh or chilled plaice | 82.3 | -8.0 |
| 010420 - Live goats | 10.7 | -7.6 |

| Table A6.3 (continued) | Share of Dutch exports in EU26 exports to non-EU countries and average change, 2004-2009 | |
|---|---|---|
| **HS6 product code** | **Average share of NL exports in EU exports to non-EU countries (extra-EU)** | **Average annual change of share** |
| 030612 - Frozen lobsters, whether in shell or not, incl. lobsters in shell, cooked by steaming or by boiling in water | 11.8 | -7.6 |
| 110820 - Inulin | 61.8 | -7.5 |
| 530210 - Hemp 'cannabis sativa', raw or retted | 24.3 | -7.0 |
| 070930 - Fresh or chilled aubergines | 59.2 | -6.6 |
| 150600 - Other animal fats and oils and their fractions, whether or not refined, but not chemically modified (excl. pig fat, poultry fat, fats of bovine animals, sheep and goats, fats of fish and other marine animals, lard stearin, lard oil, oloest | 54.9 | -6.5 |
| 170230 - Glucose in solid form and glucose syrup, not containing added flavouring or colouring matter and not containing fructose or containing in the dry state, <20% by weight of fructose | 44.2 | -6.3 |
| 020441 - Frozen sheep carcasses and 1/2 carcasses (excl. lambs) | 62.0 | -6.2 |
| 090920 - Coriander seeds | 9.5 | -6.1 |
| 071420 - Sweet potatoes, fresh or dried, whether or not sliced or in the form of pellets | 73.7 | -5.9 |
| 080119 - Fresh coconuts, whether or not shelled or peeled | 61.8 | -5.9 |
| 120740 - Sesame seeds, whether or not broken | 19.0 | -5.3 |
| 080590 - Fresh or dried citrus fruit (excl. oranges, lemons, grapefruit, mandarins, incl. tangerines and satsumas, clementines, wilkings and similar citrus hybrids) | 54.2 | -5.2 |
| 121120 - Ginseng roots, fresh or dried, whether or not cut … | 8.8 | -5.1 |
| 051000 - Ambergris, castoreum, civet and musk; cantharides; bile, whether or not dried; glands and other animal products used …) | 31.1 | -5.0 |

| Table A6.3 (continued) | Share of Dutch exports in EU26 exports to non-EU countries and average change, 2004-2009 | |
|---|---|---|
| **HS6 product code** | **Average share of NL exports in EU exports to non-EU countries (extra-EU)** | **Average annual change of share** |
| 151530 - Castor oil and fractions thereof, whether or not refined, but not chemically modified | 6.8 | -4.9 |
| 510220 - Coarse animal hair, neither carded nor combed (excl. wool, hair and bristles used in the manufacture of brooms and brushes…) | 32.4 | -4.9 |
| 140110 - Bamboos | 28.6 | -4.8 |
| 120791 - Poppy seeds, whether or not broken | 44.0 | -4.7 |
| 121220 - Seaweeds and other algae, fresh or dried, whether or not ground | 14.0 | -4.7 |
| 080720 - Fresh pawpaws 'papayas' | 76.5 | -4.6 |
| 080121 - Fresh or dried brazil nuts, in shell | 29.4 | -4.6 |
| 030332 - Frozen plaice | 33.8 | -4.5 |
| 070420 - Brussels sprouts, fresh or chilled | 55.6 | -4.5 |
| 090620 - Crushed or ground cinnamon and cinnamon-tree flowers | 15.9 | -4.3 |
| 110814 - Manioc starch | 17.8 | -4.2 |
| 070951 - Fresh or chilled mushrooms of the genus 'agaricus' | 14.8 | -4.1 |
| 010599 - Live domestic ducks, geese, turkeys and guinea fowl weighing >185 g | 41.8 | -4.1 |
| 110430 - Germ of cereals, whole, rolled, flaked or ground | 11.1 | -4.0 |
| 150890 - Groundnut oil and its fractions, whether or not refined (excl. chemically modified and crude) | 3.3 | -4.0 |
| 140120 - Rattans | 21.9 | -4.0 |
| 230330 - Brewing or distilling dregs and waste | 0.2 | -4.0 |
| 090930 - Cumin seeds | 36.9 | -4.0 |

Note: The listing is ordered according to the change of shares of NL exports in EU exports to non-EU countries. The list includes the first 40 products for which the trade data gives the largest change. The complete list of products is available on request.
Source: own calculation using deflated ComExt trade data.

| Table A6.4 | Decrease in share of Dutch exports in EU26 exports to non-EU countries and changes of Dutch and EU26 exports to non-EU countries, average values for 2004-2009 | | |
|---|---|---|---|
| **HS6 product code** | **Decrease in share of NL exports in EU26 exports** | **Change of NL exports to non-EU countries [extra-EU)** | **Change of EU26 exports to non-EU countries (extra-EU)** |
| | **percentage points** | **1000 Euro** | **1000 Euro** |
| 230210 - Bran, sharps and other residues of maize 'corn', whether or not in the form of pellets, derived from sifting, milling or other working | -13.8 | -114 | -47 |
| 170260 - Fructose in solid form and fructose syrup not containing added flavouring or colouring matter and containing, in the dry state,>50% by weight of fructose (excl. chemically pure fructose) | -13.6 | -820 | -196 |
| 230650 - Oil cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of coconut or copra | -11.1 | -1 | 1 |
| 230500 – Oil cake and other solid residues, whether or not ground or in the form of pellets,… | -10.0 | -2 | 0 |
| 071151 - Mushrooms of the genus 'agaricus', provisionally preserved, … | -9.6 | -124 | -123 |
| 151590 - Fixed vegetable fats and oils and their fractions, whether or not refined… | -8.7 | -8,442 | -1,632 |
| 152000 - Glycerol 'glycerine', whether or not pure; glycerol waters and glycerol lyes | -8.5 | -1,306 | -491 |

| Table A6.4 (continued) | Decrease in share of Dutch exports in EU26 exports to non-EU countries and changes of Dutch and EU26 exports to non-EU countries, average values for 2004-2009 | | |
|---|---|---|---|
| **HS6 product code** | **Decrease in share of NL exports in EU26 exports** | **Change of NL exports to non-EU countries [extra-EU)** | **Change of EU26 exports to non-EU countries (extra-EU)** |
| | **percentage points** | **1000 Euro** | **1000 Euro** |
| 070490 - Fresh or chilled cabbages, kohlrabi, kale and similar edible brassicas (excl. cauliflowers…) | -8.0 | -2,886 | 777 |
| 030222 - Fresh or chilled plaice | -8.0 | -64 | -52 |
| 010420 - Live goats | -7.6 | -44 | -10 |
| 030612 - Frozen lobsters, whether in shell or not, incl. lobsters in shell, cooked | -7.6 | -81 | -3 |
| 110820 - Inulin | -7.5 | -4 | 13,225 |
| 070930 - Fresh or chilled aubergines | -6.6 | -796 | 598 |
| 150600 - Other animal fats and oils and their fractions, whether or not refined, but not chemically modified (excl. pig fat,…) | -6.5 | -48 | 358 |
| 170230 - Glucose in solid form and glucose syrup, not containing …taining fructose or containing in the dry state, <20% by weight of fructose | -6.3 | -3,847 | -2,024 |
| 020441 - Frozen sheep carcasses and 1/2 carcasses (excl. lambs) | -6.2 | -2 | 27 |
| 090920 - Coriander seeds | -6.1 | -32 | 4,372 |
| 071420 - Sweet potatoes, fresh or dried, whether or not… | -5.9 | -42 | 87 |
| 080119 - Fresh coconuts, whether or not shelled or peeled | -5.9 | -29 | 68 |

| Table A6.4 (continued) | Decrease in share of Dutch exports in EU26 exports to non-EU countries and changes of Dutch and EU26 exports to non-EU countries, average values for 2004-2009 | | |
|---|---|---|---|
| **HS6 product code** | **Decrease in share of NL exports in EU26 exports** | **Change of NL exports to non-EU countries [extra-EU)** | **Change of EU26 exports to non-EU countries (extra-EU)** |
| | **percentage points** | **1000 Euro** | **1000 Euro** |
| 120740 - Sesame seeds, whether or not broken | -5.3 | -250 | 5 |
| 080590 - Fresh or dried citrus fruit (excl. oranges, lemons, grapefruit, mandarins, … ) | -5.2 | -21 | 42 |
| 051000 - Ambergris, castoreum, civet and musk; cantharides; bile, whether or not dried; gland… | -5.0 | -164 | -40 |
| 510220 - Coarse animal hair, neither carded nor combed (excl. wool, hair…) | -4.9 | -19 | -9 |
| 140110 - Bamboos | -4.8 | -76 | -70 |
| 120791 - Poppy seeds, whether or not broken | -4.7 | -442 | 374 |
| 121220 - Seaweeds and other algae | -4.7 | -487 | -159 |
| 080720 - Fresh pawpaws 'papayas' | -4.6 | -3 | 68 |
| 070420 - Brussels sprouts, fresh or chilled | -4.5 | -72 | -19 |
| 090620 - Crushed or ground cinnamon and cinnamon-tree flowers | -4.3 | -49 | 141 |
| 110814 - Manioc starch | -4.2 | -39 | -11 |
| 070951 - Fresh or chilled mushrooms of the genus 'agaricus' | -4.1 | -222 | 6,004 |
| 010599 - Live domestic ducks, geese, turkeys and guinea fowl weighing >185 g | -4.1 | -18 | -4 |
| 110430 - Germ of cereals, whole, rolled... | -4.0 | -8 | 993 |

| Table A6.4 (continued) | Decrease in share of Dutch exports in EU26 exports to non-EU countries and changes of Dutch and EU26 exports to non-EU countries, average values for 2004-2009 | | |
|---|---|---|---|
| **HS6 product code** | **Decrease in share of NL exports in EU26 exports** | **Change of NL exports to non-EU countries [extra-EU)** | **Change of EU26 exports to non-EU countries (extra-EU)** |
| | **percentage points** | **1000 Euro** | **1000 Euro** |
| 150890 - Groundnut oil and its fractions… | -4.0 | -212 | 99 |
| 230330 - Brewing or distilling dregs and waste | -4.0 | -29 | 465 |
| 090930 - Cumin seeds | -4.0 | -51 | 278 |
| 071339 - Dried, shelled beans 'vigna and phaseolus'… | -3.9 | -7 | 826 |
| 151321 - Crude palm kernel and babassu oil | -3.9 | -2 | 28 |
| 200510 - Homogenised vegetables, put up for retail sale as infant food or for dietetic purposes, in containers of =<250 g | -3.9 | -291 | 1,309 |
| 110423 - Hulled, pearled, sliced, kibbled or otherwise worked maize grains … | -3.7 | -108 | 31 |
| 130232 - Mucilages and thickeners… | -3.5 | -3,050 | -3,030 |
| 330124 - Oils of peppermint 'mentha piperita', whether or not terpeneless... | -3.5 | -234 | -202 |
| 071333 - Dried, shelled kidney beans 'phaseolus vulgaris' | -3.5 | -273 | 388 |
| 070519 - Fresh or chilled lettuce (excl. cabbage lettuce) | -3.3 | -186 | 2,057 |
| 190420 - Prepared foods obtained from unroasted cereal flakes… | -3.2 | -802 | 1,544 |

Note: The listing is ordered according to the change of shares of NL exports in EU exports to non-EU countries. The list includes the first 40 products for which the trade data gives the largest change. The complete list of products is available on request.
Source: own calculation using deflated ComExt trade data.

| Table A6.5 | List of products for which five and four years of trade stops are reported, NL exports to non-EU countries (extra-EU), 2004-2009 | |
|---|---|---|
| **HS6 product code** | **Years of trade stops** | **Duration of trade stop** |
| 120300 - Copra | 2004-2008 | 5 |
| 230700 - Wine lees; argol | 2005-2009 | 5 |
| 240290 - Cigars, cheroots, cigarillos and cigarettes consisting wholly of tobacco substitutes | 2005-2009 | 5 |
| 410310 - Raw hides and skins of goats or kids, fresh or salted, dried, limed, pickled or otherwise preserved, whether or not dehaired or split (excl. parchment-dressed and hides and skins of goats or kids from Yemen, Mongolia or Tibet) | 2005-2009 | 5 |
| 530590 - Ramie and other vegetable textile fibres, n.e.s., raw or processed, but not spun; tow, noils and waste of such fibres, incl. yarn waste and garnetted stock' | 2005-2009 | 5 |
| 440210 - Bamboo charcoal, incl. shell or nut charcoal, whether or not agglomerated (excl. used as a medicament, mixed with incense, activated bamboo charcoal and in the form of crayons) | 2004-2008 | 5 |
| 071232 - Dried wood ears 'auricularia spp.', whole, cut, sliced, broken or in powder, but not further prepared' | 2004, 2005, 2006-2009 | 5 |
| 110319 - Groats and meal of cereals (excl. wheat, oats, maize and rice) | 2004, 2005, 2006-2009 | 5 |
| 151521 - Crude maize oil | 2004, 2005, 2006-2009 | 5 |
| 230210 - Bran, sharps and other residues of maize 'corn', whether or not in the form of pellets, derived from sifting, milling or other working | 2005-2009 | 5 |
| 330122 - Oils of jasmine, whether or not terpeneless, incl. Concretes | 2004, 2006-2009 | 5 |
| 430170 - Raw fur skins of true and eared seals, whole, whether or not without heads, tails or feet | 2004, 2005, 2006-2009 | 5 |

| Table A6.5 (continued) | List of products for which five and four years of trade stops are reported, NL exports to non-EU countries (extra-EU), 2004-2009 | |
|---|---|---|
| **HS6 product code** | **Years of trade stops** | **Duration of trade stop** |
| 530521 - Abaca 'manila hemp or musa textilis', raw | 2004, 2005, 2006-2009 | 5 |
| 010594 - Live fowl of the species gallus domesticus, weighing >185 | 2004-2007 | 4 |
| 020210 - Frozen bovine carcasses and 1/2 carcasses | 2006-2009 | 4 |
| 020410 - Fresh or chilled lamb carcasses and 1/2 carcasses | 2000-2007 | 4 |
| 030194 - Live bluefin tuna 'thunnus thynnus' | 2004-07, 2009 | 4 |
| 030262 - Fresh or chilled haddock | 2004-2007, 2009 | 4 |
| 030263 - Fresh or chilled coalfish | 2004-2008 | 4 |
| 030267 - Fresh or chilled swordfish 'xiphias gladius' | 2004-2008 | 4 |
| 030422 - Frozen fillets of toothfish 'dissostichus spp.' | 2004-2007 | 4 |
| 080260 - Macadamia nuts, fresh or dried, whether or not shelled or peeled | 2004-2007 | 4 |
| 090300 - Mate | 2006-2009 | 4 |
| 091040 - Thyme and bay leaves | 2006-2009 | 4 |
| 091050 - Curry | 2006-2009 | 4 |
| 110620 - Flour and meal of sago or of manioc, arrowroot, salep, jerusalem artichokes, sweet potatoes and similar roots and tubers with high starch or inulin content | 2004-2007 | 4 |
| 121020 - Hop cones, ground, powdered or in the form of pellets; lupulin | 2006-2009 | 4 |
| 121110 - Liquorice roots, fresh or dried, whether or not cut, crushed or powdered | 2006-2009 | 4 |
| 140420 - Cotton linters | 2004-2006, 2009 | 4 |
| 230649 - Oil cake and other solid residues, whether or not ground or in the form of pellets... | 2005-2008 | 4 |
| 440728 - Iroko, sawn or chipped lengthwise, sliced or peeled, whether or not planed, sanded or end-jointed, of a thickness of >6 mm | 2004-2006, 2009 | 4 |

| Table A6.5 (continued) | List of products for which five and four years of trade stops are reported, NL exports to non-EU countries (extra-EU), 2004-2009 | |
|---|---|---|
| **HS6 product code** | **Years of trade stops** | **Duration of trade stop** |
| 440793 - Maple 'acer spp.', sawn or chipped lengthwise, sliced or peeled, whether or not planed, sanded or end-jointed, of a thickness of >6 mm | 2004-2006, 2009 | 4 |
| 440794 - Cherry 'prunus spp.', sawn or chipped lengthwise, sliced or peeled, whether or not planed, sanded or end-jointed, of a thickness of >6 mm | 2004-2006, 2009 | 4 |
| 450200 - Natural cork, debarked, roughly squared or in square or rectangular blocks, plates, sheets or strips, incl. sharp-edged blanks for corks or stoppers | 2004, 2005, 2007, 2008 | 4 |
| 500100 - Silkworm cocoons suitable for reeling | 2006-2009 | 4 |
| 510130 - Carbonised wool, neither carded nor combed | 2006-2009 | 4 |
| 510320 - Waste from wool or fine animal hair, incl. yarn waste (excl. noils and garnetted stock) | 2006-2009 | 4 |
| 510540 - Coarse animal hair, carded or combed | 2004-2006, 2008 | 4 |
| 121291 - Sugar beet, fresh or dried, whether or not ground | 2004-2005, 2007-2008 | 4 |
| 230650 – Oil cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of coconut or copra | 2005-2008 | 4 |
| Source: own calculation using deflated ComExt trade data. | | |

| Table A6.6 | List of products for which five and four years of trade stops are reported, NL exports to the EU26 (intra-EU), 2004-2009 | |
|---|---|---|
| **HS6 product code** | **Years of trade stops** | **Duration of trade stop** |
| 010631 - Live birds of prey | 2004, 2006-2009 | 5 |
| 020840 - Fresh, chilled or frozen meat and edible offal from whales, dolphins and porpoises, 'mammals of the order cetacea' and of manatees and dugongs 'mammals of the order sirenia' | 2005-2009 | 5 |
| 030236 - Fresh or chilled southern bluefin tuna 'thunnus maccoyii' | 2004-2008 | 5 |
| 030362 - Frozen toothfish 'dissostichus spp.' | 2004-2006, 2008-2009 | 5 |
| 050610 - Ossein and bones treated with acid | 2004, 2006-2009 | 5 |
| 050710 - Ivory, unworked or simply prepared, its powder and waste (excl. cut to shape) | 2004-2007, 2009 | 5 |
| 121020 - Hop cones, ground, powdered or in the form of pellets; lupulin | 2004-2006, 2008, 2009 | 5 |
| 430160 - Raw fur skins of fox, whether or not without heads, tails or feet | 2004-2006, 2008, 2009 | 5 |
| 430190 - Heads, tails, feet and other pieces or cuttings of fur skins suitable for use in furriery | 2004-2006, 2008, 2009 | 5 |
| 440722 - Virola, imbuia and balsa, sawn or chipped lengthwise, sliced or peeled, of a thickness of >6 mm, sanded, or end-jointed, whether or not planed | 2004-2007, 2009 | 5 |
| 500310 - Silk waste, incl. cocoons unsuitable for reeling, yarn waste and garnetted stock, neither carded nor combed | 2004, 2005, 2007-2009 | 5 |
| 500390 - Silk waste, incl. cocoons unsuitable for reeling, yarn waste and garnetted stock, carded or combed | 2004, 2005, 2007-2009 | 5 |
| 510119 - Greasy wool, incl. fleece-washed wool, neither carded nor combed (excl. shorn wool) | 2004-2006, 2008, 2009 | 5 |
| 510129 - Degreased wool, non-carbonised, neither carded nor combed (excl. shorn wool) | 2005-2009 | 5 |

| Table A6.6 (continued) | List of products for which five and four years of trade stops are reported, NL exports to the EU26 (intra-EU), 2004-2009 | |
|---|---|---|
| **HS6 product code** | **Years of trade stops** | **Duration of trade stop** |
| 510400 - Garnetted stock of wool or of fine or coarse animal hair, neither carded nor combed | 2004, 2005, 2007-2009 | 5 |
| 510521 - Wool, combed, in fragments 'open tops' | 2004, 2005, 2007-2009 | 5 |
| 510540 - Coarse animal hair, carded or combed | 2004-2008 | 5 |
| 130211 - Opium | 2005-2009 | 5 |
| 030346 - Frozen southern bluefin tuna 'thunnus maccoyii' | 2004-2007 | 4 |
| 050100 - Human hair, unworked, whether or not washed or scoured; waste of human hair | 2004, 2005, 2007, 2009 | 4 |
| 050300 - Horsehair and horsehair waste, whether or not put up as a layer, with or without supporting material | 2006-2009 | 4 |
| 050790 - Tortoiseshell, whalebone and whalebone hair, horns, antlers, hooves, nails, claws… | 2004, 2007-2009 | 4 |
| 070910 - Fresh or chilled globe artichokes | 2006-2009 | 4 |
| 070952 - Fresh or chilled truffles | 2006-2009 | 4 |
| 071130 - Capers provisionally preserved but unsuitable in that state for immediate consumption | 2006-2009 | 4 |
| 071233 - Dried jelly fungi 'tremella spp.', whole, cut, sliced, broken or in powder, but not further prepared' | 2006-2009 | 4 |
| 081030 - Fresh black, white or red currants and gooseberries | 2006-2009 | 4 |
| 090610 - Cinnamon and cinnamon-tree flowers (excl. crushed and ground) | 2006-2009 | 4 |
| 091040 - Thyme and bay leaves | 2006-2009 | 4 |
| 091050 - Curry | 2006-2009 | 4 |
| 110230 - Rice flour | 2006-2009 | 4 |
| 120300 - Copra | 2006-2009 | 4 |
| 120710 - Palm nuts and kernels, whether or not broken | 2006-2009 | 4 |
| 120730 - Castor oil seeds, whether or not broken | 2005, 2006-2009 | 4 |
| 120760 - Safflower seeds, whether or not broken | 2006-2009 | 4 |

| Table A6.6 (continued) | List of products for which five and four years of trade stops are reported, NL exports to the EU26 (intra-EU), 2004-2009 | |
|---|---|---|
| **HS6 product code** | **Years of trade stops** | **Duration of trade stop** |
| 120926 - Timothy grass seed for sowing | 2006-2009 | 4 |
| 121110 - Liquorice roots, fresh or dried, whether or not cut, crushed or powdered | 2006-2009 | 4 |
| 121210 - Locust beans, incl. locust bean seeds, fresh or dried, whether or not ground | 2006-2009 | 4 |
| 121230 - Apricot, peach or plum stones and kernels | 2006-2009 | 4 |
| 130110 - Natural lac | 2006-2009 | 4 |
| 130214 - Sap and extract of pryrethrum or of roots of plants containing rotenone | 2006-2009 | 4 |
| 140300 - Vegetable materials, such as broomcorn, piassava, couch grass and istle, of a kind used primarily in brooms or in brushes, whether or not in hanks or bundles | 2006-2009 | 4 |
| 140410 - Raw vegetable materials primarily for dyeing or tanning n.e.s. | 2006-2009 | 4 |
| 151221 - Crude cotton-seed oil | 2005-2008 | 4 |
| 151540 - Tung oil and its fractions, whether or not refined, but not chemically modified | 2006-2009 | 4 |
| 200590 - Vegetables and mixtures of vegetables, prepared or preserved otherwise than by vinegar or acetic acid (excl. frozen, homogenised vegetables of subheading 2005 10, and tomatoes, mushrooms, truffles, potatoes, sauerkraut, peas 'pisum sativum | 2006-2009 | 4 |
| 230220 - Bran, sharps and other residues of rice, whether or not in the form of pellets, derived from sifting, milling or other working | 2006-2009 | 4 |
| 330111 - Oils of bergamot, whether or not terpeneless, incl. concretes and absolutes | 2006-2009 | 4 |
| 330114 - Oils of lime, whether or not terpeneless, incl. concretes and absolutes | 2006-2009 | 4 |

| Table A6.6 (continued) | List of products for which five and four years of trade stops are reported, NL exports to the EU26 (intra-EU), 2004-2009 | |
|---|---|---|
| **HS6 product code** | **Years of trade stops** | **Duration of trade stop** |
| 330121 - Oils of geranium, whether or not terpeneless, incl. concretes and absolutes | 2006-2009 | 4 |
| 330123 - Oils of lavender or of lavandin, whether or not terpeneless, incl. concretes and absolutes | 2006-2009 | 4 |
| 330126 - Oils of vetiver, whether or not terpeneless, incl. concretes and absolutes | 2006-2009 | 4 |
| 440724 - Virola, mahogany 'swietenia spp.', imbuia and balsa, sawn or cut lengthwise, sliced or barked, whether or not planed, sanded or finger-jointed, of a thickness of >6 mm | 2006-2009 | 4 |
| 440920 - Wood, incl. blocks, strips and friezes for parquet flooring, not assembled, moulded, grooved, tongued, rebated, bevelled, friezed, rounded or similarly worked along one or more edges or faces, whether or not planed, sanded or finger-jointed | 2006-2009 | 4 |
| 530210 - Hemp 'cannabis sativa', raw or retted | 2006-2009 | 4 |
| Source: own calculation using deflated ComExt trade data. | | |

| Table A6.7 | List of products that the Netherlands export to the EU26 but are subject to incidences of no trade with non-EU countries, 2004-2009 | |
|---|---|---|
| **HS6 product code** | **Exports to EU26 (intraEU)** | **Exports to non-EU countries (extraEU)** |
| 020421 - Fresh or chilled sheep carcasses and 1/2 carcasses (excl. lambs) | trade | no trade |
| 020830 - Fresh, chilled or frozen meat and edible offal of primates | trade | no trade |
| 030191 - Live trout 'salmo trutta, salmo gairdneri, salmo clarki, salmo aguabonita, salmo gilae' | trade | no trade |
| 030235 - Fresh or chilled bluefin tuna 'thunnus thynnus' | trade | no trade |
| 030239 - Fresh or chilled tuna (excl. albacore or long-finned tuna and yellowfin tuna) | trade | no trade |
| 030265 - Fresh or chilled sharks | trade | no trade |
| 030563 - Anchovies 'engraulis spp.', salted or in brine only (excl. fillets) | trade | no trade |
| 081210 - Cherries, provisionally preserved, but unsuitable in that state for immediate consumption | trade | no trade |
| 121130 - Coca leaf, fresh or dried, whether or not cut, crushed or powdered | trade | no trade |
| 230610 – Oil cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of cotton seeds | trade | no trade |
| 510310 - Noils of wool or of fine animal hair (excl. garnetted stock) | trade | no trade |
| 010190 - Live horses, asses, mules and hinnies (excl. pure-bred for breeding) | trade | trade stop |
| 010290 - Live bovine animals (excl. pure-bred for breeding) | trade | trade stop |
| 010310 - Pure-bred breeding swine | trade | trade stop |
| 010519 - Live domestic ducks, geese, turkeys and guinea fowl, weighing =<185 g | trade | trade stop |
| 010594 - Live fowl of the species gallus domesticus, weighing >185 | trade | trade stop |

| Table A6.7 (continued) | List of products that the Netherlands export to the EU26 but are subject to incidences of no trade with non-EU countries, 2004-2009 | |
|---|---|---|
| **HS6 product code** | **Exports to EU26 (intraEU)** | **Exports to non-EU countries (extraEU)** |
| 010611 - Live primates | trade | trade stop |
| 020210 - Frozen bovine carcasses and 1/2 carcasses | trade | trade stop |
| 020410 - Fresh or chilled lamb carcasses and 1/2 carcasses | trade | trade stop |
| 020422 - Fresh or chilled cuts of sheep, unboned | trade | trade stop |
| 020680 - Fresh or chilled edible offal from sheep, goats, horses, asses, mules and hinnies | trade | trade stop |
| 020724 - Fresh or chilled turkeys of the species domesticus, not cut into pieces | trade | trade stop |
| 030192 - Live eels 'anguilla spp.' | trade | trade stop |
| 030219 - Fresh or chilled salmonidae (excl. trout, pacific salmon, atlantic salmon and danube salmon) | trade | trade stop |
| 030231 - Fresh or chilled albacore or longfin tuna | trade | trade stop |
| 030232 - Fresh or chilled yellowfin tuna | trade | trade stop |
| 030262 - Fresh or chilled haddock | trade | trade stop |
| 030263 - Fresh or chilled coalfish | trade | trade stop |
| 030264 - Fresh or chilled mackerel | trade | trade stop |
| 030266 - Fresh or chilled eels 'anguilla spp.' | trade | trade stop |
| 030311 - Frozen sockeye salmon [red salmon] 'oncorhynchus nerka' | trade | trade stop |
| 030341 - Frozen albacore or longfin tuna | trade | trade stop |
| 030343 - Frozen skipjack or stripe-bellied bonito | trade | trade stop |
| 030349 - Frozen tuna (excl. albacore or longfin and yellowfin) | trade | trade stop |
| 030375 - Frozen dogfish and other sharks | trade | trade stop |
| 030510 - Fish meal fit for human consumption | trade | trade stop |
| 030551 - Dried cod 'gadus morhua, gadus ogac, gadus macrocephalus', whether or not salted, not smoked (excl. fillets) | trade | trade stop |

| Table A6.7 (continued) | List of products that the Netherlands export to the EU26 but are subject to incidences of no trade with non-EU countries, 2004-2009 | |
|---|---|---|
| **HS6 product code** | **Exports to EU26 (intraEU)** | **Exports to non-EU countries (extraEU)** |
| 030621 - Rock lobster and other sea crawfish, whether in shell or not, incl. in shell, cooked by steaming or by boiling in water (excl. frozen) | trade | trade stop |
| 041000 - Turtles' eggs, birds' nests and other edible products of animal origin n.e.s. | trade | trade stop |
| 050290 - Badger and other brush making hair and waste thereof | trade | trade stop |
| 050510 - Feathers used for stuffing and down, not further worked than cleaned, disinfected or treated for preservation | trade | trade stop |
| 071120 - Olives, provisionally preserved but unsuitable in that state for immediate consumption | trade | trade stop |
| 071151 - Mushrooms of the genus 'agaricus', provisionally preserved, e.g., by sulphur dioxide gas, in brine, in sulphur water or in other preservative solutions, but unsuitable in that state for immediate consumption' | trade | trade stop |
| 071159 - Mushrooms and truffles, provisionally preserved, e.g., by sulphur dioxide gas, in brine, in sulphur water or in other preservative solutions, but unsuitable in that state for immediate consumption (excl. mushrooms of the genus 'agaricus')' | trade | trade stop |
| 071232 - Dried wood ears 'auricularia spp.', whole, cut, sliced, broken or in powder, but not further prepared' | trade | trade stop |
| 080121 - Fresh or dried brazil nuts, in shell | trade | trade stop |
| 090300 - Mate | trade | trade stop |
| 100110 - Durum wheat | trade | trade stop |
| 100200 - Rye | trade | trade stop |
| 100400 - Oats | trade | trade stop |
| 110319 - Groats and meal from cereals (excl. wheat, oats, maize and rice) | trade | trade stop |

| Table A6.7 (continued) | List of products that the Netherlands export to the EU26 but are subject to incidences of no trade with non-EU countries, 2004-2009 | |
|---|---|---|
| **HS6 product code** | **Exports to EU26 (intraEU)** | **Exports to non-EU countries (extraEU)** |
| 110620 - Flour and meal from sago or manioc, arrowroot, salep, jerusalem artichokes, sweet potatoes and similar roots and tubers with high starch or inulin content | trade | trade stop |
| 120720 - Cotton seeds, whether or not broken | trade | trade stop |
| 120791 - Poppy seeds, whether or not broken | trade | trade stop |
| 121120 - Ginseng roots, fresh or dried, whether or not cut, crushed or powdered | trade | trade stop |
| 121291 - Sugar beet, fresh or dried, whether or not ground | trade | trade stop |
| 140420 - Cotton linters | trade | trade stop |
| 150430 - Fats and oils and their fractions of marine mammals, whether or not refined (excl. chemically modified) | trade | trade stop |
| 150810 - Crude groundnut oil | trade | trade stop |
| 151321 - Crude palm kernel and babassu oil | trade | trade stop |
| 151521 - Crude maize oil | trade | trade stop |
| 152200 - Degras; residues resulting from the treatment of fatty substances or animal or vegetable waxes | trade | trade stop |
| 160540 - Crustaceans, prepared or preserved (excl. crabs, shrimps, prawns and lobster) | trade | trade stop |
| 170112 - Raw beet sugar (excl. added flavouring or colouring) | trade | trade stop |
| 170220 - Maple sugar, in solid form, and maple syrup (excl. flavoured or coloured) | trade | trade stop |
| 190430 - Bulgur wheat in the form of worked grains, obtained by cooking hard wheat grains | trade | trade stop |
| 220430 - Grape must, partly fermented, of an actual alcoholic strength of >0.5% vol (excl. grape must whose fermentation has been arrested by the addition of alcohol) | trade | trade stop |

| Table A6.7 (continued) | List of products that the Netherlands export to the EU26 but are subject to incidences of no trade with non-EU countries, 2004-2009 | |
|---|---|---|
| **HS6 product code** | **Exports to EU26 (intraEU)** | **Exports to non-EU countries (extraEU)** |
| 220590 - Vermouth and other wine from fresh grapes, flavoured with plants or aromatic substances, in containers of >2 l | trade | trade stop |
| 230210 - Bran, sharps and other residues of maize 'corn', whether or not in the form of pellets, derived from sifting, milling or other working | trade | trade stop |
| 230250 - Bran, sharps and other residues of leguminous plants, whether or not in the form of pellets | trade | trade stop |
| 230330 - Brewing or distilling dregs and waste | trade | trade stop |
| 230500 - Oil cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of groundnut oil | trade | trade stop |
| 230620 - Oil cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of linseed | trade | trade stop |
| 230630 - Oil cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of sunflower seeds | trade | trade stop |
| 230641 - Oil cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of low erucic acid rape or colza seeds… | trade | trade stop |
| 230649 - Oil cake and other solid residues, whether or not ground or in the form of pellets… | trade | trade stop |
| 230690 - Oil cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of vegetable fats or oils (excl. of cotton seeds, linseed, sunflower seeds… | trade | trade stop |
| 240290 - Cigars, cheroots, cigarillos and cigarettes | trade | trade stop |
| 350219 - Egg albumin (excl. dried [e.g. in sheets, scales, flakes…) | trade | trade stop |

| Table A6.7 (continued) | List of products that the Netherlands export to the EU26 but are subject to incidences of no trade with non-EU countries, 2004-2009 | |
|---|---|---|
| **HS6 product code** | **Exports to EU26 (intraEU)** | **Exports to non-EU countries (extraEU)** |
| 440110 - Firewood, in the form of logs, billets, twigs, faggots or similar | trade | trade stop |
| 440121 - Coniferous wood chips or particles (excl. those of a kind used principally for dying or tanning purposes) | trade | trade stop |
| 440310 - Wood in the rough, treated with paint, stains, creosote or other preservatives (excl. rough-cut wood for walking sticks, umbrellas, tool shafts, etc;; wood in the form of railway sleepers; wood cut into boards or beams, etc.) | trade | trade stop |
| 440610 - Railway sleepers of wood, not impregnated | trade | trade stop |
| 440726 - White lauan, white meranti, white seraya, yellow meranti and alan, sawn or cut lengthwise, sliced or barked, whether or not planed, sanded or finger-jointed, of a thickness of >6 mm | trade | trade stop |
| 450190 - Cork waste; crushed, powdered or ground | trade | trade stop |
| 450200 - Natural cork, debarked, roughly squared or in square or rectangular blocks, plates, sheets or strips, incl. sharp-edged blanks for corks or stoppers | trade | trade stop |
| 510220 - Coarse animal hair, neither carded nor combed (excl. wool...) | trade | trade stop |
| 520299 - Cotton waste (excl. yarn waste and garnetted stock) | trade | trade stop |
| 520300 - Cotton, carded or combed | trade | trade stop |
| 020423 - Fresh or chilled boneless cuts of sheep | trade | trade stop |
| 150300 - Lard stearin, lard oil, oleostearin, oleo-oil and tallow oil | trade | trade stop |
| 170240 - Glucose in solid form and glucose syrup not containing added flavouring or colouring matter-- | trade | trade stop |

| Table A6.7 (continued) | List of products that the Netherlands export to the EU26 but are subject to incidences of no trade with non-EU countries, 2004-2009 | |
|---|---|---|
| **HS6 product code** | **Exports to EU26 (intraEU)** | **Exports to non-EU countries (extraEU)** |
| 230650 - Oil cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of coconut or copra | trade | trade stop |
| 520100 - Cotton, neither carded nor combed | trade | trade stop |
| 530129 - Flax, hackled or otherwise processed, but not spun (excl. broken, scutched and retted flax) | trade | trade stop |

Note: Observations of no trade refer to zero trade flows but also to the situation where trade stopped in one year and restarted in another. Incidences of no trade could also be due to lack of information.
Source: own calculation using deflated ComExt trade data.

| Table A6.8 | Difference of the increase in NL exports to non-EU countries and to the EU26, average values for 2004-2009 | | |
|---|---|---|---|
| **HS6 product code** | **Change of NL exports to non-EU countries (extra EU)** | **Change of NL export to EU26 (intraEU)** | |
| | **1000 Euro** | **1000 Euro** | **Difference** |
| 060319 - Fresh cut flowers and buds, of a kind suitable for bouquets or for ornamental purposes (excl. roses, carnations, orchids, chrysanthemums and gladioli) | 36,238 | 203,529 | 167,291 |
| 060311 - Fresh cut roses and buds, of a kind suitable for bouquets or for ornamental purposes | 13,082 | 117,608 | 104,526 |
| 151190 - Palm oil and its fractions, whether or not refined (excl. chemically modified and crude) | 6,453 | 74,995 | 68,542 |
| 220710 - Undenatured ethyl alcohol, of actual alcoholic strength of >= 80% | 483 | 66,574 | 66,092 |
| 030429 - Frozen fish fillets (excl. swordfish and toothfish) | 3,753 | 50,931 | 47,177 |
| 020130 - Fresh or chilled bovine meat, boneless | 615 | 47,464 | 46,849 |
| 180400 - Cocoa butter, fat and oil | 11,185 | 41,410 | 30,225 |
| 040700 - Birds' eggs, in shell, fresh, preserved or cooked | 8,408 | 37,781 | 29,373 |
| 021099 - Meat and edible offal, salted, in brine, dried or smoked, and edible flours and meals of meat or meat offal | 180 | 29,161 | 28,981 |
| 020713 - Fresh or chilled cuts and edible offal from fowl of the species | 220 | 28,962 | 28,742 |
| 030419 - Fresh or chilled fillets and other fish meat 'whether or not minced' | 635 | 25,542 | 24,907 |
| 060314 - Fresh cut chrysanthemums and buds, of a kind suitable for bouquets or for ornamental purposes | 14,044 | 37,897 | 23,854 |
| 151211 - Crude sunflower seed or safflower oil | 345 | 24,152 | 23,807 |

| Table A6.8 (continued) | Difference of the increase in NL exports to non-EU countries and to the EU26, average values for 2004-2009 | | |
|---|---|---|---|
| **HS6 product code** | **Change of NL exports to non-EU countries (extra EU)** | **Change of NL export to EU26 (intraEU)** | |
| | **1000 Euro** | **1000 Euro** | **Difference** |
| 010594 - Live fowl of the species gallus domesticus, weighing >185 | 10 | 22,177 | 22,167 |
| 382370 - Fatty alcohols, industrial | 2,723 | 24,135 | 21,412 |
| 080610 - Fresh grapes | 4,304 | 25,365 | 21,060 |
| 220290 - Non-alcoholic beverages (excl. water, fruit or vegetable juices and milk) | 2,687 | 23,465 | 20,778 |
| 151790 - Edible mixtures or preparations of animal or vegetable fats or oils and edible fractions | 4,169 | 24,571 | 20,401 |
| 070320 - Garlic, fresh or chilled | 116 | 18,856 | 18,741 |
| 120510 - Low erucic acid rape or colza seeds 'yielding a fixed oil which has an erucic acid content of <2% and yielding a solid component of glucosinolates of <30 micromoles/g' | 14 | 18,133 | 18,120 |
| 010391 - Live pure-bred swine, weighing <50 kg | 2,837 | 18,352 | 15,516 |
| 200912 - Orange juice, unfermented, brix value | 225 | 14,942 | 14,717 |
| 190531 - Sweet biscuits | 654 | 14,145 | 13,491 |
| 180310 - Cocoa paste (excl. defatted) | 2,749 | 16,154 | 13,404 |
| 200899 - Fruit, nuts and other edible parts of plants, prepared or preserved | 542 | 13,683 | 13,141 |
| 210690 - Food preparations n.e.s. | 5,328 | 18,259 | 12,932 |
| 100630 - Semi-milled or wholly milled rice | 7 | 12,920 | 12,913 |
| 080300 - Bananas, incl. plantains, fresh or dried | 53 | 12,230 | 12,176 |
| 180690 - Chocolate and other preparations containing cocoa, in containers or immediate packaging of =<2 kg | 3,191 | 14,806 | 11,614 |

| Table A6.8 (continued) | Difference of the increase in NL exports to non-EU countries and to the EU26, average values for 2004-2009 | | |
|---|---|---|---|
| **HS6 product code** | **Change of NL exports to non-EU countries (extra EU)** | **Change of NL export to EU26 (intraEU)** | |
| | **1000 Euro** | **1000 Euro** | **Difference** |
| 020319 - Fresh or chilled meat of swine (excl. carcasses and 1/2 carcasses, and hams, shoulders and cuts thereof, unboned) | 1,812 | 12,942 | 11,131 |
| 230641 - Oil cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of low erucic acid rape or colza seeds 'yielding a fixed oil which has an erucic acid content of <2% and yielding a solid component | 8 | 11,117 | 11,109 |
| 200520 - Potatoes, prepared or preserved otherwise than by vinegar or acetic acid (excl. frozen) | 415 | 11,006 | 10,591 |
| 060312 - Fresh cut carnations and buds, of a kind suitable for bouquets or for ornamental purposes | 1,102 | 10,928 | 9,826 |
| 200599 - Vegetables and mixtures of vegetables, prepared or preserved otherwise than by vinegar, non-frozen (excl. preserved by sugar, homogenised vegetables of subheading 2005.10, and tomatoes, mushrooms, truffles, potatoes, peas 'pisum sativum', beans 'vigna, ph | 948 | 10,746 | 9,798 |
| 080440 - Fresh or dried avocados | 2.343 | 11.822 | 9.479 |

Note: The difference is calculated by taking the Dutch exports to the EU26 (intra-EU) as the benchmark for comparison, thus difference = (intraEU)-(extra-EU). Listing is ordered according to the largest difference between the increase in NL exports to non-EU countries and the increase in NL exports to the EU26. The 35 products for which the largest difference is observed are listed. The complete list of products is available on request.
Source: own calculation using deflated ComExt trade data.

| Table A6.9 | Decrease in NL exports to non-EU countries and increase in NL exports to the EU26, average value for 2004-2009 | |
|---|---|---|
| **HS6 product code** | **Change of NL exports to non-EU countries (extra EU)** | **Change of NL export to EU26 (intraEU)** |
| | **1000 Euro** | **1000 Euro** |
| 220300 - Beer made from malt | -13,498 | 15,019 |
| 030374 - Frozen mackerel 'scomber scombrus, scomber australasicus, scomber japonicus' | -9,542 | 554 |
| 230400 - Oil cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of Soybean oil | -7,053 | 41,569 |
| 110100 - Wheat or meslin flour | -6,291 | 3,551 |
| 210610 - Protein concentrates and textured protein substances | -5,994 | 3,386 |
| 151620 - Vegetable fats and oils and their fractions, partly or wholly hydrogenated, inter-esterified, re-esterified or elaidinised, whether or not refined, but not further prepared | -5,591 | 1,333 |
| 150790 - Soybean oil and its fractions, whether or not refined (excl. chemically modified and crude) | -4,497 | 11,910 |
| 190590 - Bread, pastry, cakes, biscuits and other bakers' wares, whether or not containing cocoa; communion wafers, empty cachets of a kind suitable for pharmaceutical use, sealing wafers, rice paper... | -3,080 | 781 |
| 070200 - Tomatoes, fresh or chilled | -2,967 | 41,165 |
| 070490 - Fresh or chilled cabbages, kohlrabi, kale and similar edible brassicas (excl. cauliflowers, headed broccoli and brussels sprouts) | -2,886 | 1,912 |
| 151319 - Coconut oil and its fractions, whether or not refined, but not chemically modified (excl. crude) | -1,750 | 2,294 |
| 151710 - Margarine (excl. liquid) | -1,739 | 10,975 |
| 090121 - Roasted coffee (excl. decaffeinated) | -1,653 | 18,517 |

| Table A6.9 (continued) | Decrease in NL exports to non-EU countries and increase in NL exports to the EU26, average value for 2004-2009 | |
|---|---|---|
| **HS6 product code** | **Change of NL exports to non-EU countries (extra EU)** | **Change of NL export to EU26 (intraEU)** |
| | **1000 Euro** | **1000 Euro** |
| 180620 - Chocolate and other food preparations containing cocoa, in blocks, slabs or bars weighing >2 kg or in liquid, paste, powder, granular or other bulk form, in containers or immediate packaging of a content >2 kg (excl. cocoa powder) | -1,460 | 2,040 |
| 350211 - Egg albumin, dried 'e.g. in sheets, scales, flakes, powder' | -1,417 | 1,414 |
| 130219 - Vegetable saps and extracts (excl. liquorice, hops, pryrethrum, roots of plants containing rotenone and opium) | -1,353 | 511 |
| 152000 - Glycerol 'glycerine', whether or not pure; glycerol waters and glycerol lyes | -1,306 | 103 |
| 060210 - Unrooted cuttings and slips | -1,296 | 1,381 |
| 040130 - Milk and cream of a fat content by weight of >6%, not concentrated nor containing added sugar or other sweetening matter | -1,239 | 4,070 |
| 090111 - Coffee (excl. roasted and decaffeinated) | -1,094 | 1,555 |
| 070930 - Fresh or chilled aubergines | -796 | 253 |
| 040899 - Birds' eggs, not in shell, fresh, cooked by steaming or boiling in water, moulded, frozen or otherwise preserved, whether or not sweetened (excl. dried) | -550 | 7,952 |
| 110520 - Flakes, granules and pellets of potatoes | -546 | 303 |
| 130239 - Mucilages and thickeners derived from vegetable products, whether or not modified (excl. from locust beans, locust bean seeds, guar seeds and agar-agar) | -513 | 139 |
| 030339 - Frozen flat fish (excl. halibut, plaice and sole) | -506 | 226 |
| 330129 - Essential oils, whether or not terpeneless, | -490 | 1,221 |

| Table A6.9 (continued) | Decrease in NL exports to non-EU countries and increase in NL exports to the EU26, average value for 2004-2009 | |
|---|---|---|
| **HS6 product code** | **Change of NL exports to non-EU countries (extra EU)** | **Change of NL export to EU26 (intraEU)** |
| | **1000 Euro** | **1000 Euro** |
| 121220 - Seaweeds and other algae, fresh or dried, whether or not ground | -487 | 30 |
| 151530 - Castor oil and fractions thereof, whether or not refined, but not chemically modified | -233 | 1.503 |
| 070519 - Fresh or chilled lettuce (excl. cabbage lettuce) | -186 | 2.156 |
| 190219 - Uncooked pasta, not stuffed or otherwise prepared, not containing eggs | -178 | 234 |
| 040120 - Milk and cream of a fat content by weight of >1% but =<6%, not concentrated nor containing added sugar or other sweetening matter | -173 | 6.863 |
| 200811 - Groundnuts, prepared or preserved n.e.s. | -162 | 2,742 |
| 151530 - Castor oil and fractions thereof, whether or not refined, but not chemically modified | -233 | 1,503 |
| 070519 - Fresh or chilled lettuce (excl. cabbage lettuce) | -186 | 2.156 |
| 190219 - Uncooked pasta, not stuffed or otherwise prepared, not containing eggs | -178 | 234 |
| 040120 - Milk and cream of a fat content by weight of >1% but =<6%, not concentrated nor containing added sugar or other sweetening matter | -173 | 6.863 |
| 200811 - Groundnuts, prepared or preserved n.e.s. | -162 | 2.742 |

Note: Listing is ordered according to largest decrease in NL exports to non-EU countries. The 40 products with the largest decrease are listed, out of a total of 162. The complete list of products is available on request.
Source: own calculation using deflated ComExt trade data.

| Table A6.10 | List of products with a large difference between the increase in exports to EU26 and the decrease in NL exports to non-EU countries, average values for 2004-2009 | | |
|---|---|---|---|
| **HS6 product code** | **Change of NL exports to non-EU countries (extra EU)** | **Change of NL export to EU26 (intraEU)** | **Difference between increase in exports to EU26 and decrease in exports to non-EU in absolute terms** |
| | **1000 Euro** | **1000 Euro** | **1000 Euro** |
| 010392 - Live pure-bred swine, weighing >= 50 kg (excl. pure-bred for breeding) | -52 | 47,529 | 47,477 |
| 070200 - Tomatoes, fresh or chilled | -2,967 | 41,165 | 38,198 |
| 151411 - Low erucic acid rape or colza oil 'fixed oil which has an erucic acid content of <2%', crude' | -24 | 35,911 | 35,886 |
| 230400 - Oil cake and other solid residues, whether or not ground or in the form of pellets, resulting from the extraction of Soybean oil | -7,053 | 41,569 | 34,517 |
| 090121 - Roasted coffee (excl. decaffeinated) | -1,653 | 18,517 | 16,864 |
| 160414 - Prepared or preserved tuna, skipjack and atlantic bonito, whole or in pieces (excl. minced) | -16 | 10,837 | 10,821 |
| 040620 - Grated or powdered cheese | -474 | 10,199 | 9,725 |
| 151710 - Margarine (excl. liquid) | -1,739 | 10,975 | 9,236 |
| 150790 - Soybean oil and its fractions, | -4,497 | 11,910 | 7,412 |
| 040899 - Birds' eggs, not in shell, fresh, cooked by steaming or boiling in water, | -550 | 7,952 | 7,402 |
| 080550 - Fresh or dried lemons 'citrus limon, citrus limonum' and limes 'citrus aurantifolia, citrus latifolia' | -73 | 6,790 | 6,717 |

| Table A6.10 (continued) | List of products with a large difference between the increase in exports to EU26 and the decrease of NL exports to non-EU countries, average values for 2004-2009 | | |
|---|---|---|---|
| **HS6 product code** | **Change of NL exports to non-EU countries (extra EU)** | **Change of NL export to EU26 (intraEU)** | **Difference between increase in exports to EU26 and decrease in exports to non-EU in absolute terms** |
| | **1000 Euro** | **1000 Euro** | **1000 Euro** |
| 040120 - Milk and cream of a fat content by weight of >1% but =<6%, not concentrated nor containing added sugar | -173 | 6,863 | 6,690 |
| 400129 - Natural rubber in primary forms or in plates, sheets or strip (excl. smoked sheets, tsnr and natural rubber latex, whether or not prevulcanised) | -15 | 4,365 | 4,351 |
| 010290 - Live bovine animals (excl. pure-bred for breeding) | -16 | 3,545 | 3,529 |
| 081110 - Frozen strawberries, uncooked or cooked by steaming or boiling in water, whether or not sweetened | -119 | 3,378 | 3,260 |
| 230240 - Bran, sharps and other residues of cereals... | 0 | 3,047 | 3,046 |
| 010599 - Live domestic ducks, geese, turkeys and guinea fowl weighing >185 g | -18 | 3,010 | 2,992 |
| 040130 - Milk and cream of a fat content by weight of >6%, not concentrated nor containing added sugar or other sweetening matter | -1,239 | 4,070 | 2,830 |
| 200811 - Groundnuts, prepared or preserved n.e.s. | -162 | 2,742 | 2,579 |
| 200490 - Vegetables and mixtures of vegetables, prepared or preserved otherwise than by vinegar or acetic acid, frozen (excl. tomatoes, mushrooms, truffles and potatoes) | -3 | 2,326 | 2,323 |

| Table A6.10 (continued) | List of products with a large difference between the increase in exports to EU26 and the decrease of NL exports to non-EU countries, average values for 2004-2009 | | |
|---|---|---|---|
| **HS6 product code** | **Change of NL exports to non-EU countries (extra EU)** | **Change of NL export to EU26 (intraEU)** | **Difference between increase in exports to EU26 and decrease in exports to non-EU in absolute terms** |
| | **1000 Euro** | **1000 Euro** | **1000 Euro** |
| 070519 - Fresh or chilled lettuce (excl. cabbage lettuce) | -186 | 2,156 | 1,970 |
| 400110 - Natural rubber latex | -11 | 1,829 | 1,818 |
| 210420 - Food preparations consisting of finely homogenised mixtures of two or more basic ingredients, such as meat, fish, vegetables or fruit, put up for retail sale as infant food or for dietetic purposes, in containers of =<250g | -34 | 1,840 | 1,806 |
| 240391 - Tobacco, 'homogenised' or 'reconstituted' from finely-chopped tobacco leaves, tobacco refuse or tobacco dust | -234 | 1,880 | 1,646 |
| 110290 - Cereal flours (excl. wheat, meslin, rye, maize and rice) | -7 | 1,553 | 1,547 |
| 220300 - Beer made from malt | -13,498 | 15,019 | 1,521 |
| 070820 - Fresh or chilled beans 'vigna spp., phaseolus spp.', shelled or unshelled | -78 | 1,590 | 1,512 |
| 020230 - Boneless, frozen meat from bovine animals | -48 | 1,371 | 1,322 |
| 200830 - Citrus fruit, prepared or preserved, whether or not containing added sugar or other sweetening matter or spirit, n.e.s. | -23 | 1,333 | 1,310 |

| Table A6.10 (continued) | List of products with a large difference between the increase in exports to EU26 and the decrease of NL exports to non-EU countries, average values for 2004-2009 | | |
|---|---|---|---|
| **HS6 product code** | **Change of NL exports to non-EU countries (extra EU)** | **Change of NL export to EU26 (intraEU)** | **Difference between increase in exports to EU26 and decrease in exports to non-EU in absolute terms** |
| | **1000 Euro** | **1000 Euro** | **1000 Euro** |
| 151530 - Castor oil and fractions thereof, whether or not refined, but not chemically modified | -233 | 1,503 | 1,271 |
| 200921 - Grapefruit juice, unfermented, brix value <= 20 at 20oc, whether or not containing added sugar or other sweetening matter (excl. containing spirit) | -45 | 1,314 | 1,269 |
| 070690 - Fresh or chilled salad beetroot, salsify, celeriac, radishes and similar edible roots (excl. carrots and turnips) | -432 | 1,597 | 1,165 |
| 081320 - Dried prunes | -1 | 1,016 | 1,015 |
| 040891 - Dried birds' eggs, not in shell, whether or not sweetened (excl. egg yolks) | -64 | 1,040 | 976 |
| 160540 - Crustaceans, prepared or preserved (excl. crabs, shrimps, prawns and lobster) | -7 | 981 | 974 |
| 200290 - Tomatoes, prepared or preserved otherwise than by vinegar or acetic acid (excl. whole or in pieces) | -28 | 952 | 924 |

Note: The difference is calculated by taking the Dutch exports to the EU26 (intra-EU) as the benchmark for comparison, thus difference = (intraEU)-(extra-EU). Listing is ordered according to the largest difference. The 35 products for which the largest difference is observed are listed. The complete list of products is available on request.
Source: own calculation using deflated ComExt trade data.

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