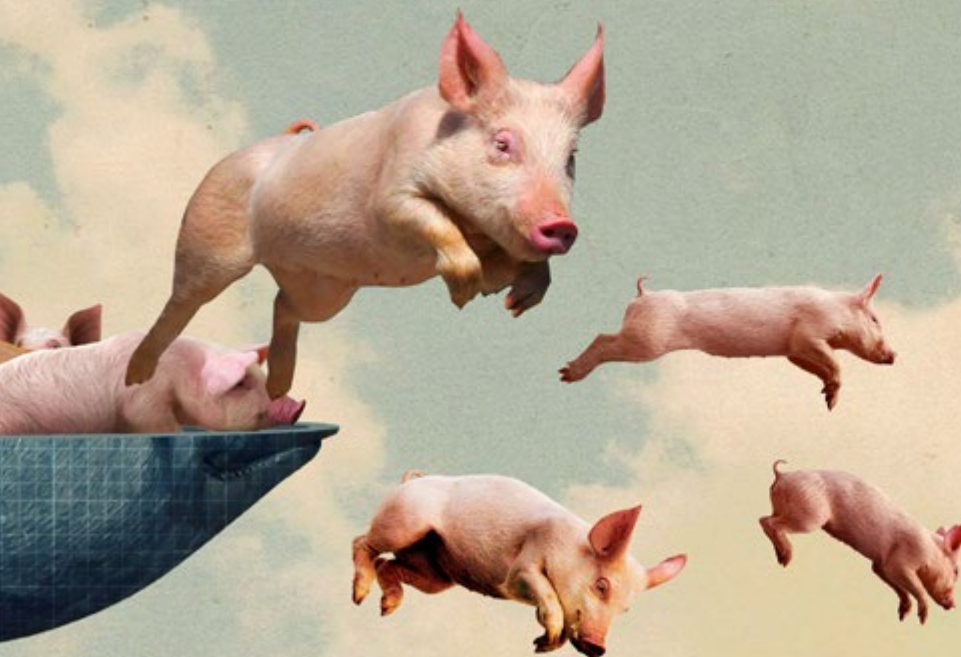


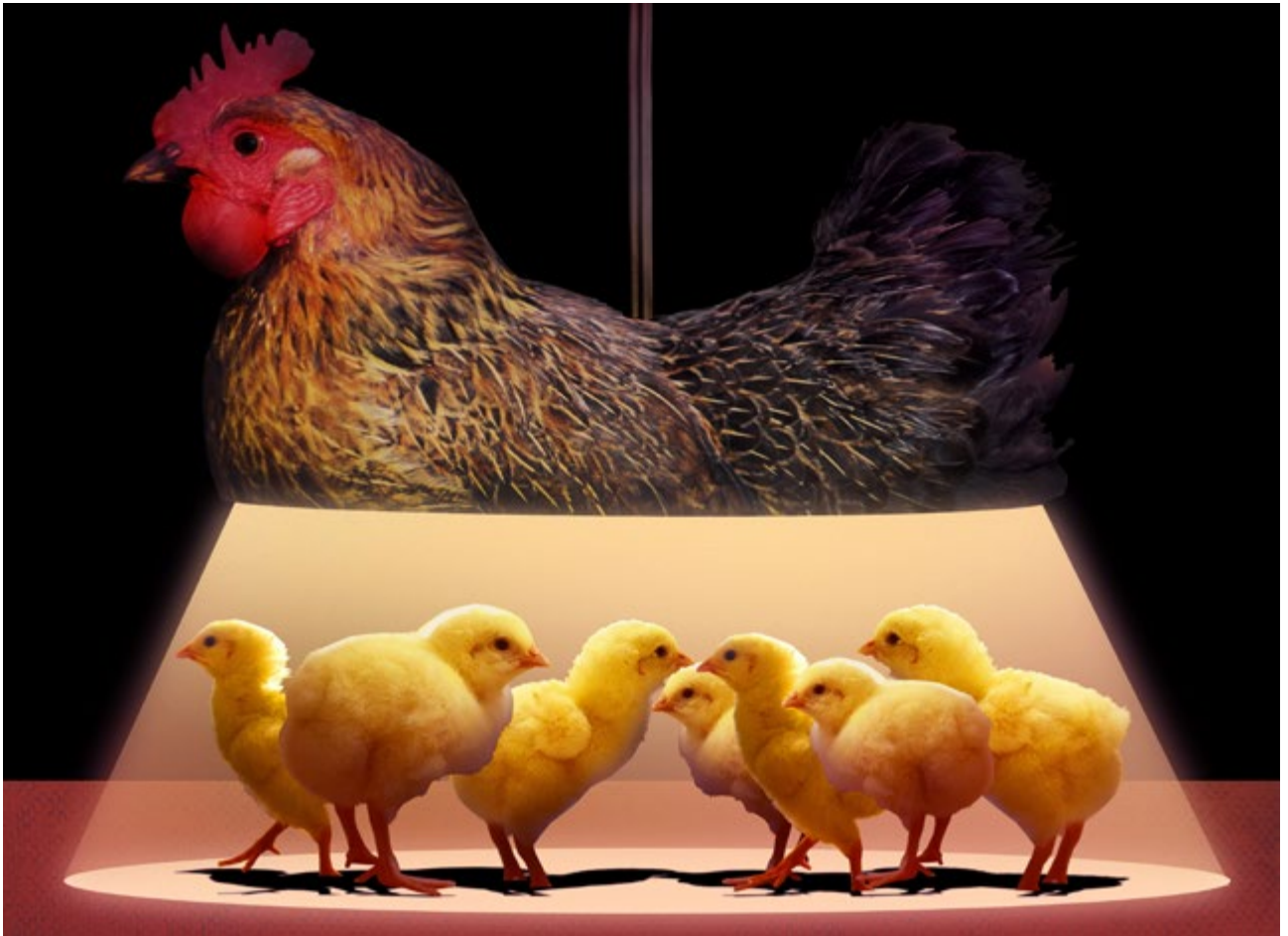
AMENDMENT TO THE ANIMALS ACT

As long as they are happy

Cows, pigs, chickens and other animals kept in barns or pens should be able to display their natural behaviour, states the revised Animals Act that comes into force in the Netherlands in 2023. But how do you decide what is natural behaviour and how you can create scope for it? 'There is a hefty price tag on some changes.'

TEXT MARIANNE WILSCHUT ILLUSTRATIONS RHONALD BLOMMESTIJN





A newborn chick cannot keep itself warm yet, so the average temperature in a typical broiler barn is 34 degrees Celsius. But in one broiler barn in Raalte, in the eastern Netherlands, the thermostat has been turned down and the chicks seek heat under the ‘mother hen’, a hood that keeps them warm with infrared panels. ‘In a natural environment, newborn chicks stay under the mother hen’s wings for the first two weeks, so this is an alternative to that,’ says Ingrid de Jong, poultry welfare researcher at Wageningen. ‘We have seen that slightly older chicks like to make use of this surrogate for their mother’s protection too.’ For De Jong, this farm belonging to the Nijkamp family provides an example of an innovative barn that both saves energy and gives the chickens more scope for their natural behaviour. The chickens get straw bales to pick in, they have plenty of space in which to free-range and take a dust bath,

and there are roosting perches and raised platforms they can retreat to. The movement pressing for more attention to animal welfare on farms started years ago, and the era of rearing calves in crates, trimming chickens’ beaks and tying up sows is over. There are more cows grazing in the fields again, and more meat on the shelves that meets the criteria of the Better Life label. All chicken in Dutch supermarkets will have to carry that label from the end of 2023. Meanwhile, consumer demand for better animal welfare goes on growing. Increasingly, it is linked with animals being able to display their natural behaviour. A revision of the Animals Act was passed by both houses of the Dutch parliament this summer. This included an amendment proposed by the Party for Animals which states that animals’ housing must not hamper their natural behaviour. The animal rights party PvdD explains that this means

animals must not be permanently deprived of the opportunity to display their natural behaviour. The amended act will be in force from 1 January 2023, but it is not yet clear exactly how this amendment will be interpreted. Carola Schouten, outgoing minister of Agriculture and Nature, has commissioned research to find out how the amendment compares with European and international rules, and what the legal implications of that are. The minister also wants the Lower House of parliament to think about the practical implementation of the amendment, which is currently formulated very vaguely. After all, what constitutes natural behaviour, and how do you define it?

WILD BOAR

‘What we understand by natural behaviour is behaviour that an animal displays in the wild and that still occurs in domesticated

‘Life in the wild is not necessarily pleasant’

animals,’ says Liesbeth Bolhuis, associate professor of Animal Behaviour at Wageningen. ‘It is known, for instance, that pigs still display the same behaviour patterns as wild boar. We know that partly from research from Sweden in which pigs were released in large parks. Those pigs behaved just like their wild relatives.’ We also know that chickens in cages attempt to take dust baths even if there is no sand or coco peat to do so with. That is a clear sign that the animal is missing something. But for a pig that gets its food and drink served up by the pig farmer, is it still essential to be able to root? Bolhuis: ‘We know from research that rooting is still important to pigs, even when their food and drink is provided. There was a study, for example, on whether pigs are willing to “pay” for enrichment of their pen with straw or sand by pressing a button or pushing against a door. They proved very willing to do so. In the course of evolution, rooting has been crucial to the survival of the species. That urge is still ingrained in pigs and if they live in a bare pen without a suitable substrate, they start applying that rooting and chewing behaviour to the pen or to their companions’ tails and ears.’

CALVES WITH THE COWS

With a view to catering for the natural behaviour of pigs, cows, chickens and other farm animals, various housing systems have been thought up in collaboration with Wageningen, and are now in use on some farms. One example is the family herd system in which, thanks to a smarter barn design, calves remain with their mothers and cows are not dehorned. For pigs too, barns have been designed that are based on their natural behaviour. These include the Family Pig barn and a group nursery system in which a group of sows

and their piglets can stay together, just as they do in the wild.

‘Anything is possible in theory, but when you are designing such systems you do run up against financial and practical challenges,’ says Karel de Greef, who does research in Wageningen into new housing designs for animals including rabbits. ‘You always have to find a balance between the interests of the farmer and of the animal, and between those of the consumer and of the animal. Working with the Dutch Society for the Protection of Animals, I have defined the criteria for the Better Life label for rabbit farms, and from the implementation of this it is obvious that society’s wish to let animals display more natural behaviour clashes with what is feasible in practice. Rabbits are group animals, for instance, and from the point of view of what’s natural, you would want to keep the does together. But sometimes they fight tooth and nail for the first few days. Try solving that one. Fights about the pecking order are normal and that is natural behaviour too.’

The jury is out, according to De Greef, as to how important natural behaviour is to domesticated animals. ‘If a rabbit can’t burrow, is its wellbeing affected? We don’t know. If you provide it with soil, it will start burrowing, but we don’t know whether you are depriving the animal if you don’t. You don’t see rabbits making digging movements the way the chickens do with dust baths.’

WOLF IN THE BARN

Liesbeth Bolhuis agrees that it is not easy for the livestock sector to fulfil all society’s wishes. ‘Life in the wild is not necessarily pleasant,’ she says, to put the issue in perspective. ‘Out of doors, animals are exposed to big changes in temperature,



INGRID DE JONG,
senior researcher into poultry welfare, Wageningen Livestock Research



PHOTO VAN ASSENDELFT FOTOGRAFIE

LIESBETH BOLHUIS,
associate professor of Animal Behaviour, Adaptation Physiology chair group

‘Enable 14 million pigs to root?’ That’s never going to happen’



PHOTO GUY ACKERMANS

KAREL DE GREEF,
researcher into housing
concepts, Wageningen
Livestock Research



PHOTO HEIN WALTER

BRAM BOS,
researcher into system
innovations Wageningen
Livestock Research

and they face their natural enemies. I assume it’s not the idea to let wolves into barns.’ She understands that there are limits to the scope for enabling natural behaviour among farm animals as the amendment aims at.

‘There is a hefty price tag on some changes. It is therefore not realistic to expect that very big changes will be made before 2023, when the amendment to the Act comes into force. So I am very curious to see how that amendment will be implemented in practice. Farmers have already had to invest a lot in things like air filters, and they don’t get higher prices because of them. That is frustrating for a lot of farmers, of course. They are quite willing to invest in animal welfare, but at the same time they bear the brunt of the costs without getting higher profits as a result.’

The scope for investment varies per sector, says Bram Bos, senior researcher on system innovations at Wageningen Livestock Research. ‘Especially in the small sectors such as rabbit and duck farming, there is hardly any scope for investment, partly because not many big companies see new housing systems as lucrative. In the larger sectors such as the pig, cow and chicken sectors, a few manufacturers like Vencomatic, Schippers and Jansen Poultry are working on barn systems and technology such as robots, which they can export as well. That way they can recoup their research and development costs. Only then will it really take off.’

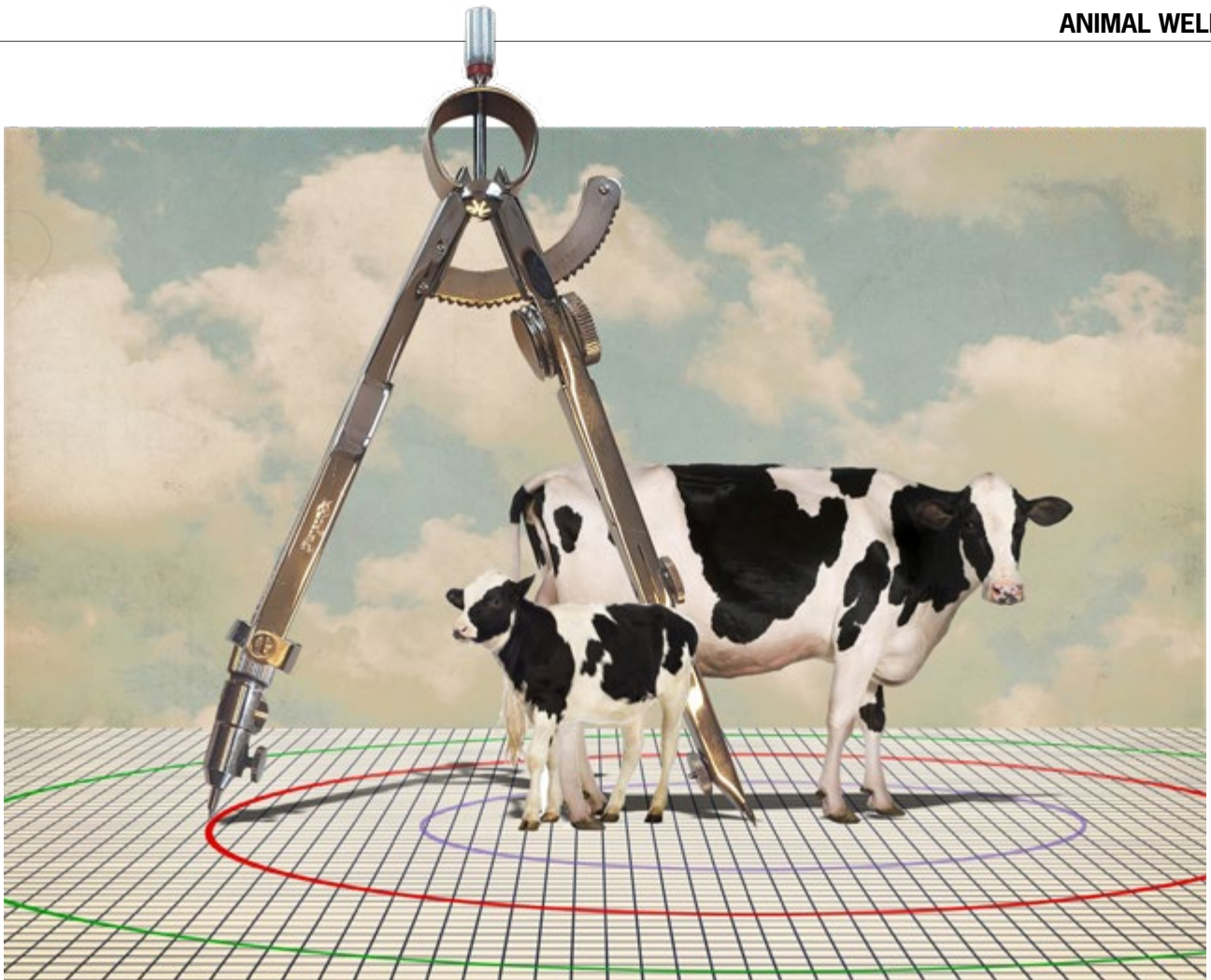
BETTER NURTURING BEHAVIOUR

Yet Bolhuis believes more can be done within the existing system in the short term, even without major investments. ‘In the wild, pregnant sows make a nest. On intensive farms you could cater for that a little bit by giving them more space and

more materials to make a nest with. You notice the positive effects of that around the time they give birth. The sows are calmer and there is even evidence that they display better nurturing behaviour. You get the same effect to some extent if you give sows a jute sack. They can’t really make a nest with it, but they can fiddle around with it. That’s such a small thing but it can have a positive impact on that sow. Without any nesting material, she remains restless.’ Another adaptation that doesn’t require much of an investment, says Bolhuis, is providing piglets with play-feeders. ‘In the wild, piglets learn to eat from their mothers through play. And you can see that weaned piglets go through a growth dip. If you allow those piglets to eat with the mother, or give them a play-feeder containing some rooting and chewing material as well as larger chunks they can play with, they are less affected by that. And that benefits the pig farmer too. A recent paper by a colleague, from a study I worked on too, shows that pigs that grow up in a more natural fashion get ill less and recover faster from a lung infection. So this makes financial sense too.’

BIG BROTHER

Key parties in the poultry sector, however, are actively investing in more animal welfare. For example, researcher Ingrid de Jong has received half a million dollars in research funding from the American Foundation for Food and Agriculture and McDonald’s for the Smart Broiler project, which aims at creating a kind of Big Brother for broiler chicks. De Jong is using the funding to develop a system for measuring animal welfare automatically in the barn. Her system works with 3D infrared cameras that monitor the behaviour of 20,000 broilers day and night.



De Jong: ‘This system ought to help poultry farmers to prevent health problems such as footpad lesions simply and relatively cheaply. We can also use it to measure whether the animals are displaying natural behaviour. We work with artificial intelligence and we have trained the software so that it can recognize whether the chicks are displaying natural behaviour, such as taking a dust bath, or whether they make use of the roosting perches or pick at the straw bales or other enrichment materials. Chickens are active and inquisitive animals and if they don’t behave in these ways, it can be a sign that they’ve got a health problem or that their needs are not being met properly. If the images show that they display little or none of this natural behaviour, the poultry farmer gets a signal to go and see what’s up.’

De Jong also expects to be able to use the system to get a better idea of animals’

needs. ‘Currently, many barns are artificially lit, but from a welfare point of view, that might not be what you should be giving a chicken at all. Maybe it likes to rest in a dark area and becomes more active in a well-lit space. And if you know that it rests in the dark, that might be where you should place the roosting perches. With this system we can measure that.’

BLOCKING ROADS

So animal welfare is work in progress. ‘A lot is possible, but it takes time and costs money,’ says Bram Bos. And even then, he doesn’t think it is possible to enable domesticated animals to display all their natural behaviour. ‘Enable 14 million pigs to root outdoors? That’s never going to happen. If you keep pigs on a large scale, it’s not a question of just opening the door.’ Even if you halve the number of pigs, you won’t manage it, he thinks.

‘Because if you have fewer animals, you have less earning capacity so you can’t invest in animal-friendlier options. Unless you can immediately ask higher prices because of them.’

He thinks it’s a good thing, though, that parliament has put these changes on the agenda through the act. ‘Pressure from society helps to get changes off the ground. Take the ban on beak-trimming, for instance: that was opposed by the sector for years, but it happened. So it’s not a bad thing for the Lower House to legislate on this. It’s just that the amendment is still too broadly formulated. Define natural behaviour clearly and come up with a realistic transition path. What the act now requires won’t be feasible before the end of 2022, and that is asking for legal battles and angry farmers blocking the roads with their tractors.’ ■

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