



# AN AWARD FOR FARMERS WHO MAKE A DIFFERENCE





PHOTO: MALENA WÄHLIN

The winners of this year's WWF Baltic Sea Farmer of the Year Award have applied a wide spectrum of solutions to achieve sustainable farming practices. Their good examples can be used by other farmers who want to stop eutrophication of the Baltic Sea.

How can farmers reduce nutrient runoff and make farming practices more environmentally friendly without necessarily reducing their profitability? WWF and the winners of the Baltic Sea Farmer of the Year Award have some answers to this question. The competition is now in its third year and in this brochure we present a variety of progressive farmers and the innovative measures they have taken.

"This year's competition has been another great success. It shows that there are a great range of possibilities for farmers who are committed to saving the Baltic Sea," says Lennart Gladh, Baltic Specialist at WWF, one of the creators of the award.

Eutrophication is the single biggest environmental problem of the Baltic Sea and farmers are often blamed for their contribution to it through nutrient runoff from their farms. Agriculture accounts for almost half of the nitrogen and phosphorous input to the sea but, as this competition shows, many farmers are taking active steps to reduce these inputs and move towards a more environmentally friendly farming. Two of these farmers are Håkan and Terri Lee Eriksson at the Wiggeby farm in Sweden – last year's winners of the Baltic Sea Farmer of the Year Award. To Håkan and Terri Lee winning the competition has meant a lot of positive attention.

"The award shows that much can be done not only in organic farming but also in conventional farming to make agricultural practices more sustainable," says Håkan Eriksson, who has taken a number of measures to reduce nutrient runoff from their farm.

As last year's winners they were awarded for, among other things, using an innovative high tech N-sensor which assures that exactly the right amount of nutrients are applied to the crops through instant calculations based readings directly in the field.

However, measures need not be expensive or complicated in order to be efficient. A better understanding of the causes of eutrophication is a first step. In Lithuania, Nerijus Zableckis from the Lithuanian Fund for Nature is a member of the jury for the national competition.

"Lack of information is still a problem for many of the farmers. The award is an important means to spread knowledge about farmers' role in reducing eutrophication," he says.

This year the competition has been held in Denmark, Estonia, Finland, Latvia, Lithuania, Poland, Russia and Sweden. A national award has been presented to one winning farmer in each of the participating countries and an international jury has selected the regional winner who receives a prize of 10.000 Euros.

On the following pages you will have the chance to meet the winners of the 2011 competition and learn more about how they are collectively making a difference for the Baltic Sea – please read on and be inspired!



"It is an inner desire for me to live in a beautiful and healthy environment with sufficient space for wildlife and with the personal benefits of growing healthy food for my family and other people. Those were my reasons for taking up farming from the very beginning," says Jonas Sidaravičius, Lithuanian winner of 2010.

# TAKE THE CHANCE TO BE A HERO

There is a ticking bomb in the shallow waters of the Baltic Sea. Eutrophication is still increasing and it's high time to do something about it. As a farmer you are a key player – a big part of the solution lies in **your** hands!

Eutrophication, or nutrient overload, is caused by excessive phosphorous and nitrogen loads which threaten to disrupt the whole ecosystem of the Baltic Sea. The nutrients make algae grow in abundance, leading to a thick green or yellow soup covering large parts of the sea during the summertime.

Not only does eutrophication affect tourism and recreation opportunities negatively, the extensive algae growth consumes oxygen and decreases water transparency causing dead zones (areas of little or no oxygen) where almost no species can live. A recent Swedish study shows that dead zones can be found closer and closer to the coastline and now cover over 28 percent of the bottom area of the Baltic Sea<sup>1</sup>.

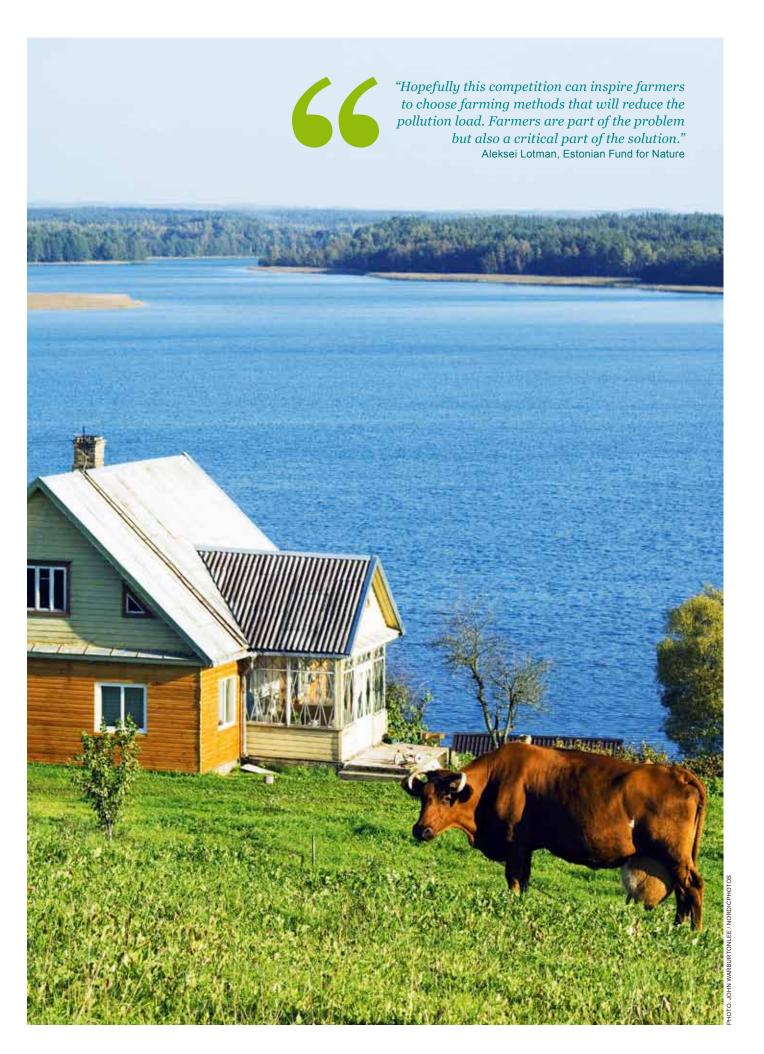
"The state of health of the Baltic Sea is worse than ever. Climate change puts a further stress on this which makes it even more important to reduce the nutrient inputs if we want to stop eutrophication," says Helén Andersson, a researcher at the Swedish Meteorological and Hydrological Institute, SMHI.

It is in this context that farmers play a very significant role. Farming accounts for almost 50 percent of the nutrient inputs to the Baltic Sea and environmentally harmful farming practices are still commonly used throughout the countries surrounding the Baltic Sea. A highly industrialized and specialized agriculture with an extensive use of fertilizers has characterized farming practices in the region since the end of the Second World War until now, causing a subsequent threat to the marine environment.

Aleksei Lotman represents the Estonian Fund for Nature, the partner organization in charge of the national Baltic Sea Farmer of the Year competition in Estonia.

"Hopefully this competition can inspire farmers to choose farming methods that will reduce the pollution load. Farmers are part of the problem but also a critical part of the solution," he says.

<sup>&</sup>lt;sup>1</sup> http://www.smhi.se/nyhetsarkiv/fortsatt-allvarlig-syrebrist-i-ostersjon-1.13720



### **POLAND Marian Rak**

"Winning this award is very important to me and will make me go one step further. Finally I feel understood and that the measures I have taken are appreciated," says Polish winner Marian Rak.





PHOTO: EDYTA GAJOS

When Marian Rak started his family farm in 1975 he had only five hectares of land. Today the farm consists of 102 hectares and includes wheat, barley, corn, rape, potatoes, orchards and cattle production. Marian Rak's wish to apply environmentally friendly methods in his farming has grown stronger during the years.

"I have always been interested in nature conservation. When I realized that my agricultural practices were harmful to the environment I decided to work for the benefit of nature," he explains.

According to Marian, it is especially important to convince farmers on the biggest farms to start applying environmental practices since they are the worst polluters. He implements a diversity of agri-environmental schemes to reduce nutrient losses including wide buffer strips, trees planted around the roads,



"I have always been interested in environmental protection. When I realized that my agricultural practices were damaging natural resources, I decided I wanted to do my part for nature."

streams and drainage ditches, intercrops and undersown crops. Apart from reducing nutrient runoff, Marian Rak has made a great effort in the preservation and restoration of biodiversity on his farm.

"I am convinced that my actions are important as I noticed that a number of species have decreased since I was a child. I do what I can to preserve the ones that are still here and restore others," he says.

Among the measures he has taken to improve natural habitats and offer sufficient space for wildlife are construction of artificial ponds and marshes, plantation of midfield forests and shrubs and nesting boxes for bats. His actions have not always been appreciated by other farmers and he has often felt misunderstood. Winning the award has convinced him that his efforts are right. Hopefully it will lead to more farmers following his example.

"I hope this award will allow me to convince local farmers that my actions are taken for a reason. For years I have tried to make them do the same. Many of them are reluctant but I guess this award will make them look at me from a different perspective," he says.



Marian Rak implements a diversity of agri-environmental schemes to reduce nutrient losses including wide buffer strips, trees planted around the roads, streams and drainage ditches. Moreover, he applies intercrops and undersown crops to his farm. PHOTO: ADAM GUZIAK

#### **Marian Rak**

Location: Samotwór village near Wrocław.

**Type of farm:** Crop production: wheat, barley, corn, rape, potatoes, orchards, permanent grassland and Lemousine cattle production.

International Jury's Motivation for the Regional Winner of the Baltic Sea Farmer of the Year Award 2011: The jury awards Mr. Marian Rak for his strong commitment to environmental protection and for demonstrating how a successful progressive conventional farm can simultaneously reduce nutrient losses while enhancing biological and landscape diversity. Through the implementation of a diverse number of agri-environmental measures, it is the jury's belief that Mr. Rak and his family have gone the extra mile to save the Baltic Sea, and that these measures could easily be replicated and duplicated by other farmers in the Baltic Sea region. Mr. Rak has also proved to be an effective ambassador and advocate for sustainable agricultural practices in Poland and, with the acknowledgement of this award, we hope his influence and example may now extend further across the Baltic Sea region.

#### **Key practices:**

- · Buffer strips
- · Artificial ponds and marshes
- · Trees and shrubs planted midfield
- Trees planted around the roads, streams (willows, linden)
- · Use of undersown crops
- · Activities to enhance biodiversity



Marian Rak has made a great effort in the preservation and restoration of biodiversity including building nesting boxes for bats and walls for lizards

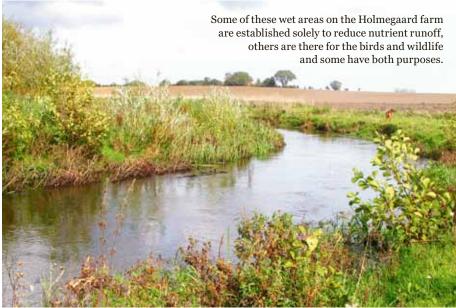


### **DENMARK** Christian Danneskiold Lassen

At Christian Danneskiold Lassen's farm Holmegaard on Zealand conventional farming takes place side by side with areas that are left untouched to preserve biodiversity.







"It is a pleasure for us to prove that you can run conventional farming and improve nature and the environment at the same time," he says.

Christian took over the farm from his parents who began introducing methods to reduce nutrient runoff and increase biodiversity. Christian wanted his farm to be both economically and ecologically sustainable and zoning has become a central concept in his thinking. He has three major zones on his 1,100 hectares farm.

"One of the zones is intensively cultivated. We need food on our planet and the land that is best to grow food on should be used for that. Then I have some land that is more suited for less intensive agriculture, like areas close to watersheds or areas where I save larger buffer strips and rows of trees interspersed with the fields. Then there are some areas that just should be left alone; where nature should run its course," Christian explains.

There are vast natural and re-created wetlands on the Holmegaard farm - partly water-covered areas where ducks, waders and other birds thrive. Some of these wet areas are established solely to reduce nutrient runoff, others are there



"Some of my neighbors just think I'm crazy. They don't understand how I can plant trees on land that could be used for growing crops."

for the birds and wildlife and some have both purposes. Christian's farm also includes semi-natural grasslands for grazing and forest.

"Some of my neighbors just think I'm crazy. They don't understand how I can

plant trees on land that could be used for growing crops. Others are interested and some are even grateful when they can see species of animals and plants returning, for example birds that they haven't seen for several years," Christian says.

#### **Christian Danneskiold Lassen**

Location: Naestved municipality, Zealand.

Type of farm: Conventional crop production and forestry. The crop production consists of a traditional North European crop rotation of rape, wheat seed, wheat, malting barley, barley, rye for bread, beets and seed grass.

#### Jury motivation

Christian Danneskiold Lassen has on his farm managed to combine efficient agriculture with an active effort to reduce nutrient leaching and ensure greater biodiversity. Without losing the main focus, a healthy and well-run farm, he has consciously and actively chosen to work for a better nature and environmental profile on his farm.

#### **Key practices**

Zoning, wetlands restoration and recreation, buffer strips.

## **ESTONIA** The Tobreluts Family

No-till agriculture is used by national winner Toomas Tobreluts and his two sons to optimise time and costs, to reduce water consumption, maintain levels of soil nutrients, and reduce erosion and surface runoff.

"Although the crop yield might decrease slightly, profit increases with this method due to reduced costs. At the beginning it was the need to optimise time and costs that encouraged us to start trying these measures," Toomas Tobreluts says.

If performed correctly, no-till farming can provide economic return by reducing labor, fuel use and the need for fertiliser and machinery costs. Besides preventing runoff, the method conserves biodiversity including soil biota, frogs and species of semi-natural grasslands. The loss of carbon from the soil into the atmosphere is also avoided with no-till farming.

"No-till farming ensures a sustainable income through healthy soil. The interest in no-till farming is increasing in our region but still many farmers think that ploughing is a must," he says. "Notill farming has long been promoted as an environmentally friendly farming practice in Latin America and several other places in the world."

The Tobreluts family use a cross slot seeder - a machine that cuts a horizontal slot under the surface of the soil. The machine places the seed and fertilizer on either side of the slot and tucks them into the soil. As the Estonian labs are not able to measure non-soluble compounds, the farmer sends soil samples to a lab in the United States to achieve a healthy chemical soil balance.

"Although our farm is located far away from the Baltic Sea, we still influence its environment via the river system."

Moreover, the Tobreluts family use intercropping and cover crops to maintain nutrient balance, and to effectively avoid losses of nutrients. A machine called a stripper header is used for harvest, which gathers only the head of the grain from





the crop, leaving the remaining plant intact. This technique prevents erosion whilst retaining nutrients in the field. Less material is harvested with this energy-efficient method, resulting in a reduction of costs as well as in ecological benefits. No-till agriculture, effectively



A stripper header is used by Toomas and his sons Lauri and Taavi to harvest their crops. This energy efficient method results in less excess material being harvested boosting profits and conservation benefits at the same time.

ensures soil health and allows for minimal use of fertilizers.

"Although our farm is located far away from the Baltic Sea, we still influence its environment via the river system. Improper fertilization could potentially pollute the Baltic," says Toomas Tobreluts.

#### The Tobreluts Family

Location: Põlva parish. Puuri village. Jõgeva county.

Type of farm: Crop production: cereals, legumes, rape and hay seed on 850 hectares of land.

#### Jury motivation

This innovative Baltic-friendly farm can potentially demonstrate an effective use of no-till farming to the entire Baltic Sea region where the practice has received too little interest. Due to eutrophication of the sea, no-till farming requires more attention, including scientific research, agricultural education, methodological development, and dissemination of best practices. As many farmers, authorities and researchers in the Baltic Sea region still doubt the viability of a no-till approach, the jury decided to acknowledge this practice.

#### **Key practices**

No-till farming, cross-slot direct seeder, stripper-header (for cereal harvesting), analysis of soil samples against non-soluble compounds, intercrops, cover crops.

## FINLAND Toni & Mari Haapakoski

Toni and Mari Haapakoski on the Finnish farm Koivorinne have received a lot of congratulations from other farmers since they won the national Baltic Sea Farmer of the Year Award competition.

"Amazing! This year we were the best farm in Finland. I am very happy and surprised. It is a big thing that we won this prize," Toni Haapakoski exclaims.

The Koivorunne farm is a farm of mixed cattle breeds which mainly produces milk. It is located in central Finland by the Saarijärvi waterway – an area highly valued for its precious landscape. The Haapakoski family work hard to reduce their impact on the surrounding area by finding the best solutions to effectively manage the nutrient cycle in their farming practices.

The measures they have taken include the construction of a wetland, an extensive grassland, wide buffer strips and the use of an over-winter green covercrop that helps prevent nutrient losses as nutrients are taken up and kept in the crops.

The Haapakoskis also pay particular attention to the efficient use of recycled nutrients from manure. Manure management is carefully planned and the manure is spread precisely up to the crop root zone to ensure minimal leakage to the environment.

"If we can avoid buying fertilizers and instead use manure from our own cows, we save money. Many environmentally friendly systems are quite simple and inexpensive," says Toni Haapakoski.

The Haapakoskis have established an extensive cooperation network and the transportation of manure to distant sites is carefully scheduled to avoid the risk of nutrients accumulating in nearby fields.

By using these management methods, the farm has achieved a closed system of nutrient flow in which nutrient input and output are in balance, and, in some cases, the amount of nutrients in the crops harvested has even exceeded the amount of nutrient input from fertilizers. In addition, an external environmental evaluation has shown that growth conditions on the farm have improved yearly. Toni Haapakoski makes use of his experiences not only on his own farm but also through the establishment of a network





PHOTO: KARI SALONEN

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"We try to take small actions every day that may not be visible from the outside or expensive but have a significant effect on the environment."

of experts that collect and provide information about environmental issues. He also arranges visits to his farm for agriculture students.

"It is important that we start taking care of our environment now and not ten years from now. We try to take small actions every day that may not be visible from the outside or expensive but have a significant effect on the environment," he says.

#### Toni and Mari Haapakoski

**Location:** Kalmari, in central Finland by the Saarijärvi waterway. Lake Saarijärvi is part of the River Kymijoki catchment area discharging into the Gulf of Finland.

**Type of farm:** Family farm with 170 hectares of conventional farming. Main practice is dairy production including 70 milking cows, plus 120 heads of young cattle and beef cattle. 157 hectares of forest.

#### Jury motivation

On this farm particular attention is paid to efficient use of nutrients from manure production which is carefully planned and carried out using technological precision. Careful on-field measures are taken to create optimal conditions for the crops to best utilize the applied nutrients. Consequently, the risk of nutrient leakage is relatively low and possible runoff is controlled with an over-winter green cover, wide bufferzones, and a wetland that is under construction. Farm Koivurinne is also a perfect example of how protection of the Baltic Sea starts with water protection at a local level.

#### **Key practices**

Efficient use of nutrients from manure. Construction of wetland and grassland, buffer strips and over-winter green cover. Adding micronutrients and sulphur to the sludge helps the crops to use the nutrients more efficiently. Manure-spreading takes place only during the growing season and nitrogen-fixing crops are used. The soil structure is taken care of with liming, correct draining, and crop rotation. Precision spreading of manure to the root zone optimizes its use as a fertilizer and avoids surface runoff.

### **LATVIA Aivars Kokts**

The Latvian winner Aivars Kokts runs a large pig farm where he has made a great effort both to reduce nutrient runoff and to improve the environment and air quality on and around his farm.

"Pig farms are one of the worst polluters in the world so I think I have a great

he says. The Latvian pig farm, SIA Ulbroka, is situated near Riga. The Ulbroka farm was a state owned farm until 1992 when it was taken over by Aivars Kokts who started to modernize it. In recent years the village around the farm has grown substantially and the unpleasant smell from the pigs began to bother the neigh-

responsibility to run my business in the best possible way for the environment,"

SIA Ulbroka was the first farm in Latvia to install special air filters to capture the ammonia gas produced by the manure. By reducing emissions of ammonia into the air, the unpleasant smell has decreased significantly along with nitrogen gas into the surrounding area.

"Pig farms are one of the worst polluters in the world so I think I have a great responsibility to run my business in the best possible way for the environment."

"Both my neighbors and my workers are happier now when they live and work in a more pleasant atmosphere," Aivars Kokts explains.

Aivars Kokts also takes care to ensure that nutrients are returned to the soil by using modern covered manure storage facilities. Moreover, he is eager to find innovative solutions to reduce emissions of greenhouse gases and to minimize his energy consumption. A heat pump makes use of the heat from the manure to balance the temperature and to heat the floor in the barn where the piglets are housed.

"Making these investments was not cheap and when I started to use these methods I was not sure it was the right way. Now I am. Winning this award tells me that it was worth it and I am very proud of it now," he says.



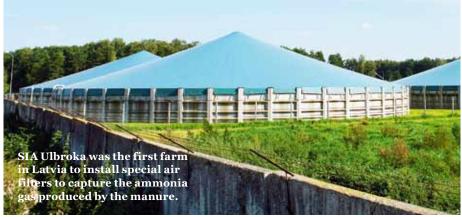


PHOTO: AIJA KRODERE

#### **Aivars Kokts**

Location: Ulbroka, Stopinu District.

Type of farm: Pig farm consisting of 16,000 pigs, including 1,000 sows. Produces 1,990 tonnes of pork yearly.

#### Jury motivation

This application was particularly outstanding because of the advanced manure management circulation cycle. The farm serves as a good example for similar farms both in Latvia and neighbouring countries as it is the first farm to install air purification equipment to reduce the emissions of ammonia to the surrounding environment. No similar practice has yet been recorded in the neighbouring countries.

#### **Key practices**

Air decontamination filters to reduce ammonia emissions, sealed-type manure storage facilities, manure heat extraction system used to reduce electricity consumption and CO<sub>2</sub> emissions.

### LITHUANIA Arūnas & Daiva Giedrikai

The Lithuanian winners, Arūnas and Daiva Giedrikai, run a certified organic farm in northern Lithuania. The ground in this sensitive area is characterized by karst, a porous rock with a dense network of cracks and sinkholes, which easily leads to nutrient leaching thereby making the reduction of nutrient runoff especially important.

"In Lithuania our farm is recognized as being nature-friendly and we are very happy to win this honorable competition. This award will encourage us to continue our work," says Arunas Giedrikas.

The Giedrikai family farm produces vegetables in a four year crop rotation system. No pesticides are used and only natural fertilizers such as compost and green manure are applied to the soil. Mustard is used as groundcover between the plants, and every four years a separate cover crop such as lupines is used to replenish the soil with nitrogen.

The Giedrikai couple has used information from books, environmental experts and agricultural advisors in their quest to achieve nature-friendly farming.

"Other farmers agree with our work and support us but unfortunately many of them find it too difficult to follow our example. A neighbor of ours started an organic farm but soon gave up. This type of farming requires a lot of heart, work and knowledge," they say.

The Giedrikai couple wants to advise other farmers to plant buffer strips of trees and large fields of shrubs to fight against wind and water erosion. This is also a way to improve conditions for birds and other wildlife by creating bird migration corridors. Moreover, they believe in

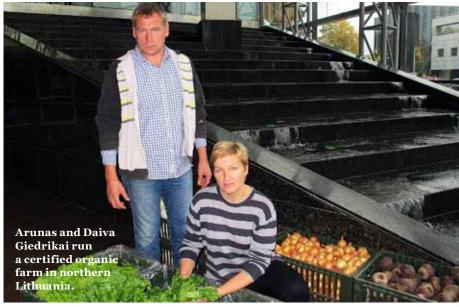


PHOTO: JŪRATĖ VANAGAITĖ

"We always knew we wanted to live in harmony with nature. Our knowledge about the environmental problems caused by the agricultural sector evoked our interest in working with these methods."

mixing different types of vegetables in the same field instead of planting large areas of the same vegetable. The organic farm was established in 2001 and from the beginning the Giedrikais have been driven by a strong wish to live in a beautiful and clean environment. "We always knew we wanted to live in harmony with nature. Our knowledge about the environmental problems caused by the agricultural sector evoked our interest in working with these methods," they say.

#### Arūnas & Daiva Giedrikai

Location: Pabirze rural district, Birzai district.

**Type of farm:** 11 hectares of organic gardening and horticultural production, no animals.

#### Jury motivation:

The farm is located in the part of Lithuania which is characterized by karst formations. Because of this feature, nutrient leaching is more intense and it is especially important to reduce the amount of nitrogen and phosphorus.

#### **Key practices:**

Use of organic fertilizers and crop rotation. 5-10 meters of fallow land is maintained as a buffer strip on the borders to other farms.



### RUSSIA Elena Ermolaeva

For Elena Ermolaeva, winner of the national Baltic Sea Farmer of the Year Award in Russia, the award will stimulate further development of her environmental work.



The organic farm Victoria is situated in the heart of the Karelian Isthmus, very close to the beautiful Nakhimovskoe Lake. The area is an old rural landscape with roots back to when the area was part of Finland.

"Applying measures against eutrophication can be very costly but is also very important. We have done all our work without governmental subsidies or longterm credits because we are activists. I am glad the work on our farm was rated so high!" Elena says.

Elena is the owner of internationally recognized breeds of cattle and takes care that all measures to prevent excessive discharge from her stalls are applied. She has developed a sustainable use of manure where manure mixed with sawdust is regularly removed to a special storage tank. During spring, summer and autumn, the manure is sold to other farmers as a natural fertilizer, and during the winter it is stored in tanks.

"Manure storage and recycling are very relevant problems. We recently decided to build a larger manure storage facility. Since farming has a great impact on eutrophication, I think every farmer should think about how to better manage nutrient runoffs," she says.

The beautiful surroundings motivate Elena to keep the area clean and attractive. Trees such as maples, oaks and chestnut have been planted on the farm. She is also committed to conserve and restore semi-natural grasslands around the farm. The area is partially used for haymaking, which is important to maintain the sustainability of the old rural landscape.

"Sustainable use of surrounding grasslands supports a better state of local biodiversity and prevents excessive nutrient discharges from the farm. I like the nature around me and I try to do my best to preserve it," she says. "Moreover, the farm does not use any artificial supplements in animal food, in accordance with organic farming principles."



For Elena Ermolaeva the beautiful nature around her farm motivated her to develop a sustainable use of manure. PHOTO: VSEVOLOD KONOVALOV





#### Elena Ermolaeva

Location: Tzvelodubovo village, Vyborg city region, Roshino, Leningrad Oblast.

Type of farm: Private organic dairy farm and livestock. Animals: Ayrshire cattle, Duroc pigs, Landrace pigs, turkeys and broiler chickens. The farm is family-based with 6-7 workers.

#### Jury motivation

Sustainable organic farming is an important component of the renovation of the agricultural industry in Russia. The national jury felt this application portrayed the rich farming traditions of the region while balancing these with an innovative approach supporting the present state of the environment and biodiversity The owner does her best to achieve a better state of local biodiversity in balance with economic effectiveness.

#### **Key practices**

Sustainable use and storage of manure and other husbandry waste, preservation and restoration of grasslands, reduction of pesticides.

### **SWEDEN Fredrik Andersson & Johan Lindgren**

The Swedish winners, Fredrik Andersson and Johan Lindgren from Vallentuna, were not awarded primarily for the work they do on their own farms, but for a number of environmental projects that they have carried through together with other farmers. They have played an important role as sources of inspiration promoting new and efficient techniques.

"Farmers are often unjustly accused for damaging the environment when many farmers do what they can to minimize their negative impact. It is really an honour to receive this award and great to see that our hard work is being recognized," says Fredrik Andersson.

Fredrik Andersson and Johan Lindgren are the chairmen of two local groups of farmers organized within the Federation of Swedish Farmers. Together with their farming colleagues they have started projects and received grants for applying structural liming, sampling, soil mapping and seeding of pastures to reduce erosion.

Structural liming is considered to have a very good effect on phosphorus leakage. If conditions are favourable it can reduce leakage by up to 50 percent. By using an active structural lime instead of conventional lime, phosphorus is kept in the ground but can still easily be taken up by the crops. Fredrik Andersson and Johan Lindgren both have a strong interest in research and emphasize the importance of using methods that have been scientifically proven.

"In general, the lack of scientific evidence is a problem when new farming methods are promoted. Structural liming has really proved to be effective," Johan Lindgren says.

However, this method is expensive compared to traditional liming and that may explain why it is not more widely used. Thanks to the grants, structural liming is now applied in the whole municipality of Vallentuna without any extra costs to the farmers. Fredrik Andersson and Johan Lindgren have been in charge of the administration of the project and spent many hours volunteering. They have also taken part in the network "Greppa näringen" – or "Catch the Nutrients," a project providing information to farmers about how to reduce their nutrient runoff.



Fredrik Andersson and Johan
Lindgren have demonstrated
strong leadership and contributed to the development of a
positive image of farmers and
the environment. They take part
in the national network "Greppa
näringen" which provides
information on how farmers can
reduce nutrient runoff.



### Fredrik Andersson & Johan Lindgren

Location: Åkerströmmens catchment, Vallentuna, Stockholm county.

#### Jury motivation

The national jury felt that this application was particularly outstanding in showing strong leadership and demonstrating the importance of farmers taking action to reduce nutrient leakage from their farms. Leadership is an important aspect for the agricultural sector to develop its environmental work and to be at the absolute forefront in applying new methods, new technologies and new ways of thinking to reduce nutrient leakage.

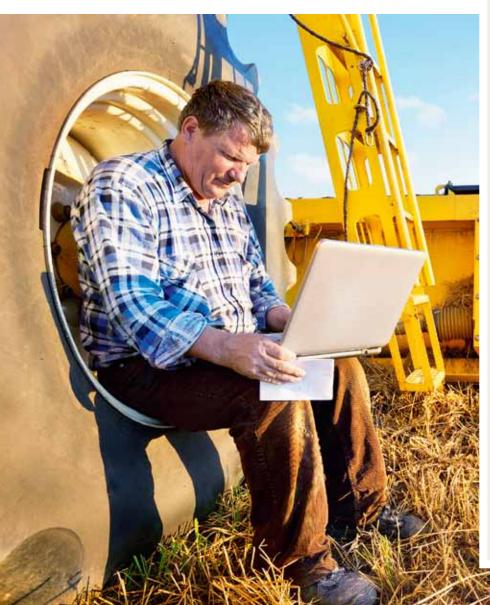
#### **Key practices**

Local cooperation between farmers on projects to improve environmental performance, structural liming; soil mapping, seeding of pastures to reduce erosion.

### **CROSSING BORDERS**

Agriculture around the Baltic Sea has already come a long way towards minimizing its impact on the environment and on the Baltic Sea.

Farmers know that cooperation and the sharing of knowledge is the way forward. The WWF Baltic Farmer of the Year Award is only one of many initiatives in which farmers, agricultural experts, authorities, scientists and NGOs cross borders, both national and institutional, to work together for a greener future. Some of these projects are listed on the border of this page. Each of the winners presented in this brochure have gone the extra mile to make their contribution to a healthier Baltic Sea. It is our hope that their work and their spirit will inspire others to follow. Cooperation, across all kinds of borders, is the way forward!



#### **Baltic agri-environmental** initiatives

#### Meatball

Meatball is a WWF project that aims to spread knowledge about sustainable farming practices. A network of model farms in all of the Baltic Sea countries is used to develop and showcase sustainable farming methods that reduce eutrophication, increase biodiversity and strengthen rural incomes.

#### www.wwf.se

#### **Baltic Deal**

The Baltic Deal is a flagship project within the EU Strategy for the Baltic Sea Region that aims to reduce agriculture's contribution of nutrients to the Baltic Sea. The project's focus is to enhance agricultural advisory services and raise farmer's competence on efficient water and nutrient usage.

www.balticdeal.eu

#### **Baltic Compass**

Baltic Compass is an EU financed project that aims to remedy the gaps in stakeholders' resources to combat eutrophication and the lack of trust between the environmental and agricultural sectors. The partners are national authorities, professional and industrial organizations, scientific institutions and innovation centres from countries around the Baltic Sea. www.balticcompass.org

#### **Baltic Manure**

Baltic Manure is an EU project that intends to identify the business opportunities available in manure handling and promote a proper use of it. Research and development within renewable energy and nutrient recycling are combined with business innovation efforts to achieve sustainable agriculture, prosperity and job opportunities. www.balticmanure.eu

### BETTER POLICIES ARE NEEDED TO SAVE THE BALTIC SEA

Many farmers are committed to caring for the environment and making active choices to use greener agricultural methods – just like the examples highlighted in this brochure.

But in order to stop harmful agricultural practices on a large scale, a reform of agricultural policies within the EU is necessary. Financial support to the agricultural sector accounts for almost half of the EU budget. Agricultural policies and subsidies to farmers within the EU have long been obstacles to reaching the goal of a more environmentally friendly agriculture, since they promote practices that are not sustainable. The proposed reform of the EU Common Agricultural Policy (CAP) which has recently been elaborated by the EU Commission does not go far enough to ensure a greener European agriculture.

With the recent proposal, significant financial support to farmers will continue without requiring much in return in terms of public goods. WWF has another vision. If this support is used to reach agreed environmental, social and economic objectives, instead of locking it up in a system of environmentally harmful subsidies, we could both save the Baltic Sea and make better use of taxpayers' money.

Subsidies should only go to farmers who can clearly prove that they have taken concrete measures to provide environmental benefits to society as a whole. As an alternative to existing policies, WWF believes a sustainable European agriculture can be within reach by following a few simple principles:

#### Principles to follow for a sustainable European agriculture

- Public payments for public goods. Public money should only be used for provision of public goods such as sustainable water management, preservation of biodiversity, maintenance of cultural and historic landscapes, rural employment and public access to rural areas.
- The polluter pays principle. All beneficiaries of public payments should be able to demonstrate compliance with the standards established by the EU, such as the Nitrates Directive, the Water Framework Directive and national legislation.
- Payments linked to clear objectives and targets. A thorough evaluation of each subsidy is necessary to see if it delivers to the sustainability objectives.
- Fair and transparent distribution of funding. The size of subsidies given to farmers who deliver public goods should be equal and neither depend on nationality nor on the division between old and new member states. Information on payments should be available in the public domain to ensure that the use of public funds is transparent and open to public scrutiny.



TO: ALMONAS GUTK

### MEASURES THAT CAN REDUCE NUTRIENT LOSSES ON FARMS

Here are the main measures practiced by the winners of the WWF Baltic Sea Farmer of the Year Award 2009, 2010 and 2011.

#### **Animal production**

- Unfortunately, many farms around the Baltic Sea still store manure directly on open ground. This practice should be avoided. Instead, manure should be stored in a way that prevents leaching before the manure is spread on the fields.
- Having a solid barn foundation for example made of clay or concrete – prevents urine from livestock from penetrating into the groundwater. It can be absorbed by litter and manure on the barn floor.
- One way to handle manure is to keep it in the barn during winter and place it in compact piles outside during spring, covered with plastic wrap to reduce nitrogen (ammonia) losses.
- Another method is to store manure in tightly closed containers to reduce gas emissions.
- Manure storage facilities should have an impermeable base, such as concrete, and should be covered.
   Manure can be stored in slurry tanks before spreading it on the fields.
- Adding basalt dust to manure absorbs ammonia.
- Manure management how much, when and how it is spread, over how large area, and how the soil is prepared - is important to optimize the use of the nutrients.
- Reducing the number of animals per hectare helps to ensure that the soil can absorb all the manure.
- Cleaning stalls, coops and cages without water prevents runoff to surrounding waters.
- Adding sulphur and micronutrients to manure sludge can help crops use the nutrients more efficiently, thereby reducing fertilizer amounts.
- Ammonia produces local air quality problems but is also a source of

- eutrophication. Excess ammonia can be reduced on the front-end by using lower levels of protein in the feed and at the back-end by installing air-filters in the stalls.
- Keeping permanent grasslands for grazing can lower nutrient runoff, help store more carbon in the ground, and preserve biodiversity.

#### **Crop production**

- Crop rotation, intercropping, cover crops, and under-sown crops helps to maintain a good nutrient balance in the soil. In crop rotation, nitrogenfixating plants ensure that subsequent plants have access to biologically fixated nitrogen.
- Keeping the soil covered by plants all year round – even during winter – fixates nutrients to the soil surface.
- Permanent grass buffer zones along major drainage ditches, riversides and lakes reduces runoff from agriculture.
- Likewise, trees can be planted around fields to reduce the impact of rainfall on arable land and to reduce runoff.
- Documenting everything that is done on the farm in a database provides a tool for follow-up analysis.
- Calculation of nutrient balance as well as agri-chemical analysis of the soil ensures the appropriate amount of fertilizer is used.
- An N sensor helps in applying an accurate rate of fertilizer on the crops according to instant calculations based on "in field" readings.
- Sedimentation ponds reduce phosphorus seepage into the aquatic environment. They can also be used for aquaculture.
- Re-cultivating deserted peat mines avoids the erosion of residual peat.
- Manure should only be spread during the growing season and should be

- ploughed into the soil right after it has been distributed.
- Fertilizer can be procured in innovative ways. In Estonia, for instance, a farmer cooperates with a cheese factory and receives the residues from the factory's wastewater treatment plant.
- No-till farming, combined with innovative machinery for sowing, fertilizer application and harvesting, can allow for a permanently covered soil and precision fertilizing, thereby minimizing nutrient runoff.
- Direct seeding of grasslands for silage and hay – i.e. seeding without previous tillage – minimizes soil disturbance and reduces erosion.
- Structural liming of soils increases water permeability, thereby reducing surface water runoff and thus also reducing runoff of nutrients, especially phosphorus. Better structure of the soil will also facilitate tilling thereby reducing fuel consumption.

#### **General measures**

- Zoning of farmland, i.e. using different levels of intensity in farming on different parts of the farm, can ensure that land-use is optimized to avoid nutrient leakage and to preserve biodiversity.
- Restoration and re-creation of wetlands can be a highly effective solution for reducing nutrient runoff on farm or landscape level. Wetlands absorb nutrients and store them in growing biomass and in sediments.
- Planting trees and brushes between fields can help reduce nutrient runoff and will support local biodiversity.
- Cooperation and skill-sharing on nutrient reduction measures among farmers can multiply good initiatives and support inventive practices.

# FACTS ABOUT THE WWF BALTIC SEA FARMER OF THE YEAR AWARD

As a means of showing our support for the agricultural sector and as a way to highlight good examples in the region, WWF, together with Swedbank, and in cooperation with the Baltic Farmers Forum for the Environment (BFFE) and with farmers' organizations from around the Baltic Sea created the WWF Baltic Sea Farmer of the Year Award.

The competition has been held annually since 2009 and is intended to inspire farmers from the entire Baltic region to take an active part in combating eutrophication. Applications have been received from farmers practicing both organic and conventional farming as well

as many different types of agriculture. The national winners have been chosen by WWF and its partner organizations around the Baltic Sea, in cooperation with farmers' and advisory organizations and, in some cases, the Ministry of Agriculture in respective countries.



### Members of the national juries

#### **DENMARK**

Jens Ejner Christensen, Chairman, Knowledge Centre for Agriculture Jan Toft Nørgaard, Farmer

**Thyge Nygaard**, Agricultural Policy Advisor, Danish Society for Nature Conservation

**Sven Hermansen**, Advice Manager, The National Organic Association

#### **ESTONIA**

Kristjan Piirimäe, Eutrophication Expert, Estonian Fund for Nature, ELF Meelis Annus, Swedbank

Margus Ess, Jõgeva Plant Breeding Institute – JPBI

#### FINLAND

**Liisa Pietola**, Head of Environmental Affairs, MTK

Sampsa Vilhunen, Head of Marine Programme, WWF Finland Airi Kulmala, Project Coordinator, Baltic Deal Project

**Antero Nikander**, Senior Inspector, Ministry of Agriculture and Forestry

#### LATVIA

Kaspars Žūriņš, Director, Latvian Rural Advisory and Training Centre Ilze Skudra, Expert, Latvian Rural Advisory and Training Centre Jānis Rozītis, Director, Pasaules Dabas Fonds

**Ingus Purgalis**, Baltic Sea and Freshwater Programme Manager, Pasaules Dabas Fonds

#### LITHUANIA

**Pranas Mierauskas**, Head of the Department of Environmental Policy, Mykolo Riomerio University. Member of the Board of Lithuanian Fund for Nature – chairman

Rovena Budrevičiūtė, Agriculture Ministry of Lithuanian Republic, Agri-Environment and Ecological Farming Department

Kristina Narvidienė, Lithuanian Agriculture Advisory Service

Sigitas Šileika, Head of Institute of Water Economy, Lithuanian University of Agriculture.

**Almonas Gutkauskas**, Director of Tatula Program, Chairman of the Board

#### POLAND

Nina Dobrzyńska, the Deputy Director of the Department for Direct Payments, the Ministry of Agriculture and Rural Development

Marek Krysztoforski and Andrzej Szymański, the Agricultural Advisory Centre (Branch Office in Radom) Anna Hadynska, WWF Poland

#### RUSSIA

Rustam Sagitov, Director of the
Baltic Fund for Nature
Evgeny Genelt-Yanovskiy,
Baltic Fund for Nature
Yulia Danilova, Baltic Fund for Nature
Viacheslav Komov, 2010 winner of the
Baltic Farmer of the Year Award in Russia,
member of the regional Farmer Union

#### **SWEDEN**

Lennart Gladh, Baltic Project
Coordinator, WWF Sweden
Sindre Langaas, Project Manager
and Expert, LRF
Fred Wulff, Professor Emeritus in Marine
Systems Ecology, Stockholm University

#### Members of the international jury

**Professor Viesturs Jansons**, Latvia University of Agriculture, Head of Department of Environmental Engineering and Water management

Helena Jonsson, Chairman of the Federation of Swedish Farmers (LRF)

Magnus Hammar, Agriculture and Forestry Section at Swedbank

**Johanna Helkimo**, Expert in Agri-environmental Payments, Centre for Economic Development, Transport and the Environment of Northern Ostrobothnia

**Professor Enn Loigu,** Institute of Environmental Engineering, Tallinn University of Technology

**Pauli Merriman,** Programme Director, WWF Baltic Ecoregion Programme **Dorota Metera,** President of the Board of Bioekspert Ltd. and Board Member of IFOAM EU Group (International Federation of Organic Agriculture Movement)

### **SPONSOR**

# Swedbank is a proud sponsor of the WWF Baltic Sea Farmer of the Year Award.

"We want to engage more in our local environment and realized that the best thing we could do for the Baltic Sea was to support a competition where examples of good farming practices are promoted," says Magnus Hammar, responsible for Forestry and Agriculture at Swedbank.

Swedbank has a long tradition of providing loans to farmers and has many customers in the agricultural and forestry sectors. Through this engagement they have realized that the economy and environment are closely interlinked. Farmers can actually realize an economic gain from minimizing both their nutrient inputs and use of pesticides since these products have become more and more expensive.

"We are a natural partner to farmers around the Baltic Sea. The different countries are at different stages of development but what is important to point out is that everyone can do something to reduce their pollution load," he says.

New techniques have made it possible to optimize fertilization and use just the



N-sensor is a technique used for precision of spreading fertilisers and manure in order to adjust the dosage to yearly conditions and different parts of the field.

amount that is needed. But when high tech equipment like an N-sensor is not within reach, good handling of manure may be an easier and just as important step to minimize the risk for nutrient runoff. Magnus Hammar is convinced that the WWF Baltic Sea Farmer of the Year Award will help make agricultural solutions to reduce eutrophication more widely known among farmers.

"The competition is a chance for farmers all around the Baltic Sea to exchange experiences and learn more about what they can do," he says.

Swedbank is sponsoring the WWF Baltic Sea Farmer of the Year Award via their special WWF-branded credit card, where customers have an opportunity to contribute with a small amount donated to WWF every time they make a card transaction.

# Swedbank



### **PARTNERS**





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The Baltic Farmers Forum for the Environment

















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## **WWF Baltic Ecoregion Programme**

### **DELIVERING RESULTS**

We are an active and effective agent of change in the conservation and sustainable management of the Baltic Sea



### REGIONAL NETWORK

We represent the largest membership network in the region and are represented in all the countries surrounding the Baltic Sea

We are and continue to be a watchdog that monitors how governments manage our common resource the Baltic Sea



#### Why we are here

To stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature.

www.panda.org/baltic

Please contact us for more information! WWF Baltic Ecoregion Porgramme www.panda.org/balticcontacts