

## A USA AGRICULTURAL PERSPECTIVE

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We often get our view of the world from Hollywood, and our view of alien invasive species is something from outer space, coming down to take over our planet. But what we are talking about at this conference are the alien invasives that are already with us, in our midst. What we have done at the United States Department of Agriculture (USDA) is to put together a poster and it says that not all alien invaders come from outer space! It elaborates on some of those more famous alien invaders in the United States. I keep this poster in my office to remind me of the importance of this issue and what we are trying to accomplish to address it.

In controlling outbreaks, several pests have slipped past our defenses in recent years -- the most notable being the Asian longhorned beetle (also shown on this poster). The beetle was introduced into the United States through solid wood packaging material from China. We have had tremendous infestations in the cities of Chicago and New York. The beetle attacks several species of hardwood trees and represents a significant threat to our native trees and forests. We have extensive eradication efforts underway to reduce the impacts of this beetle on our maple syrup and tourism industry in the United States.

Controlling such an outbreak is a costly endeavour. Together, the US Federal Government, individual states, organisations and private citizens spend approximately 137 billion dollars per year on invasive species. Moreover, control programs targeted at citrus canker, a bacterial disease that has invaded Florida, are projected to cost about 25 million dollars a year for the next 5 to 10 years. Noxious weed control costs nearly 5 billion dollars a year. Despite spending these large amounts, the United States is still losing some 3 million acres of land to noxious weeds every year.

The President of the United States crafted an Executive Order which combines the forces of the Secretary of the Interior, Secretary Babbitt, the Secretary of Commerce, Secretary Daley, and the Secretary of Agriculture, Secretary Glickman, among others, to lead new efforts to bring together the resources of the United States Government to fight this invasion.

Minister Didiza talked about the tracker dogs; that is just one of the many resources that we are using to fight invasive species. We have found it inefficient to tackle invasions individually and not collectively. We have not co-ordinated our resources. The President has asked us to co-ordinate our resources to better prevent and control alien invasions. A new Invasive Species Advisory Committee will help. Many of those advisors are here today to take part in this seminar. This Advisory Committee will help us focus our resources in identifying invasive species and preventing their entry into our country.

The Animal Plant Health Inspection Service of USDA, known as APHIS, is involved in a number of activities necessary to protect the products of agriculture and our natural resources. These activities in combination are commonly referred to as our safeguarding system and encompasses a broad range of initiatives. They include pre-clearance programs; port-of-entry inspections; quarantine treatments; and exotic pest and disease detection, survey and eradication procedures. Evaluated as a whole, these activities form an integrated, comprehensive system that effectively reduces the risk of exotic pests entering the United States.

For example, we analyze our trading partners' data concerning production areas and evaluate their activities in order to ensure animal and plant health. We conduct pest risk assessments. We determine possible points of entry by examining previous pest introductions. These efforts along with many others help us to determine how and where to concentrate our efforts. By

working strategically we can develop safeguarding mechanisms which will allow trade, while minimising and mitigating the risks associated with pests.

Right here in South Africa, for example, we have been operating a citrus pre-clearance program since 1997. We have been working with growers and agricultural researchers, to reduce the number of pests that we find in shipments of *Protea* flowers exported to the United States. Prior to 1996, cut flowers from South Africa were not allowed into the United States, but because of this increased effort we have been able to increase this export to the United States.

Let me give you a good example of how USDA is working co-operatively among its own agencies to address invasive species. As I mentioned earlier, we learned in 1996 that the Asian longhorned beetle had entered the US via wood packing material from China. We knew this beetle would be a difficult pest to eradicate, and we knew the consequences of a nationwide infestation would be grave. Accordingly, USDA officials immediately began survey and quarantine activities across the country. Unfortunately, trees that were infested had to be removed and destroyed. On the international front, we notified US importers and the Chinese Government that all wood-packing materials entering the U.S. from China would have to be treated to prevent further infestation. The USDA experts began to study the Asian longhorned beetle in its natural habitat to pin point a weakness we could use to control and eradicate it. In addition, USDA personnel also studied the beetles' susceptibility to different chemical treatments. Our University colleagues have made significant contributions to this fight. Research resulted in chemical insecticides, which have shown the best promise against the beetle in clinical trials.

Working closely with our university partners shows the benefits of effective sharing of resources and expertise. These experiences also confirm that we must remain vigilant in our pest monitoring and surveillance programs. In this regard, we know that we can draw on outside expertise to help us effectively use our available resources. Moreover, we have recently approached the National Plant Board, an association of state plant quarantine officials across the United States, to review our safeguarding system. They have come up with over 300 recommendations of how we can do a better job of keeping harmful alien species out of the United States. We are currently in the process of prioritising these recommendations and are working to incorporate them into the Nation's safeguarding system.

With regard to alien invasive species, we are exploring new tactics as well. Biological control methods, in particular, will be one of our strongest weapons against these pests. We are modifying our regulations to make it easier for researchers and other parties to gain approval on biological control programs and to bring approved biocontrol agents into our country.

There have been other recent exciting developments. For example, the development of a safe and effective viral strain against the gypsy moth. Gypsy moths were first introduced into the United States in 1869. It is a particularly damaging pest and in 1981, gypsy moths exfoliated a record 12.9 billion acres of trees. We hope that one day, biocontrol methods like this virus, will be preferred as the most effective treatment of gypsy moths. With biocontrol methods, we will be able to reduce large-scale pesticide application, like those we currently use out of necessity against this pest.

Our scientists are working in conjunction with other partners and they have found a fungus that is highly effective at knocking out kudzu in field locations where this weed grows uncontrollably. A study conducted over a three year period found that this fungus killed 100% of treated infestations. This weed can be found in 7 million acres of land throughout south-eastern United States and is capable of growing up to a foot in length every day in summer months.

One of the accomplishments we are most proud of is the partnership forged in combating Leafy Spurge. This noxious weed has spread over millions of acres of rangelands in the western United States resulting in the loss of soil and forage. The team dealing with this weed runs a research and demonstration project funded by the USDA and conducted in Cupertino with state and university partners. The team provides landowners and land managers with

effective, affordable and sustainable control techniques and in particular the use of biological control agents. Efforts so far have been successful in decreasing the acreage of spurge infested land and as a result, native grasses are beginning to re-establish.

The USDA wants to encourage these types of partnerships even further. We realise that community groups and residents are some of our strongest allies and we have mobilised funding for public outreach campaigns to help enlist local organisations and private individuals in assisting us.

I would like to end by talking about international trade. Minister Didiza has talked a little bit about this, and I am delighted that we can work with our partners in South Africa through technology transfer. However, we cannot relax and let pseudo-science restrict our trade. It is extremely important that we work very closely to ensure that we know what invasive species are out there, and to know how we can combat them. We must maintain focus on science-based decision making. With sound science and strong communication among trading partners, we can constructively tackle problems and build international trade.