## Federal Regulatory Efforts to Minimize the Introduction and Impacts of Exotic Pest Plants in the U.S.

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In recent years, there have been increased concerns about the effects of harmful nonindigenous species on natural, managed, and agricultural ecosystems in the United States. At the heart of this problem is the homogenization of biogeographical realms that have evolved in geographic and genetic isolation since the breakup of the supercontinent Pangea 180 millions years ago. The present world movement of species beyond their native ranges by humans is an unprecedented ecological event in the history of life on earth.

In response to this growing problem, USDA APHIS has developed a new weed policy to address the problem of exotic pest plants in the United States. Areas covered under the new policy include:

- 1) *regulation of all types of weeds* (weed species that threaten biodiversity of natural ecosystems, and sustainability of managed and agricultural ecosystems);
- 2) use of risk assessment to list and de-list Federal Noxious Weeds (FNWs);
- 3) *exclusion of exotic weeds* that are absent from or of limited distribution within the United States;
- 4) interstate regulation of listed FNWs;
- 5) *early detection and assessment of incipient infestations* of foreign weeds in the United States;
- 6) *eradication of designated infestations* that meet certain scientific criteria;
- 7) control of designated weeds through cost sharing; and
- 8) *a federal coordination role* to facilitate communication and cooperation among relevant public agencies and others.

An implementation plan based on the policy is now being developed to guide administrators and others who are responsible for implementing the agency weed program.

Regulatory strategies for developing and implementing an effective program to prevent further introduction and spread of exotic pest plants include:

1) weed prevention in foreign production areas (production of weed free commodities;

- 2) *preclearance of high risk commodities at ports of export* (prior to shipment to the United States);
- 3) *exclusion at ports of entry* (inspection of high risk imported commodities; treatment of contaminated commodities);
- 4) detection, assessment and containment of incipient infestations in the United States;
- 5) eradication of incipient infestations based on scientific criteria; and
- 6) *biological control* of widespread infestations that cannot be eradicated or controlled by other means.

Currently, federal and/or state projects are underway to eradicate 15 Federal Noxious Weeds from localized sites within the United States. APHIS is also involved in efforts to develop effective biological control programs for spotted and diffuse knapweed, for leafy spurge, and for purple loosestrife.