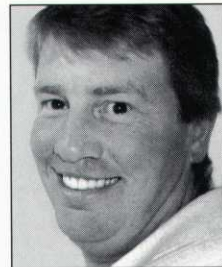


MINNESOTA IN THE CROSSHAIRS:

Asian Carp and Other Tidbits

By Paul Diegnau, CGCS
Keller Golf Course



After attending the October 20th pesticide recertification seminar at Midland Hills CC, Dr. Vera Krischik hammered home the point that invasive species in the United States are an enormous, growing problem. Approximately 50,000 invasive species are currently found within the borders of the United States! Why is that a problem? Because invasive species do not bring their natural predators with them. With no natural population control, invasive species can build to extreme levels in short periods of time, inflicting great environmental and economic damage. The sheer number of species present shows the magnitude of the problem that local, state

and federal agencies are fighting.

A current hot topic in Minnesota is the advance of Asian Carp into the Upper Mississippi River Basin (UMRB). The four species of concern are the Silver, Black, Bighead and Grass carp. These fish consume huge quantities of biomass, grow very fast, and can achieve weights of 90 - 150 lbs., depending on the specie. Originally used for vegetation control in wastewater treatment ponds and fish hatcheries, Asian carp were accidentally released from sites in Arkansas and Missouri. They have steadily advanced up the Mississippi River basin over the past 25-40 years. These fish are currently estab-

lishing populations up as far as northern Iowa. Current data suggests they can spread up to 50 miles per year and begin reproducing within two years of the arrival of the first fish. This summer, for the first time, a 23 lb. Bighead carp was caught in Lake Pepin.

The Silver carp has gained the most media exposure due to its ability to leap out of the water when disturbed by the sound of boat motors. At a recent MISAC meeting, I had the opportunity to view a DNR video on the Asian carp problem and the footage of flying Silver carp in heavily infested waters was remarkable, to say the least! Large numbers of these fish get airborne at the same time, often colliding with boats and humans, causing

damage and injury. Suddenly, using personal watercraft, water-skiing and boating in these areas have become a dangerous pasttime.

These fish could have an immense impact on the ecology and economy of the UMRB due to their voracious appetite. Their ability to consume huge quantities of phytoplankton, zooplankton, mollusks, crustaceans and detritus will negatively impact native species and their habitats. The economical impact on fishing, both commercial and recreational, hunting, boating, recreational water sports, and sightseeing could be extensive.

In 2004, the Minnesota and Wisconsin DNR completed a study with the U.S. Fish and Wildlife Service on how to limit the spread of the Asian carp species into the UMRB. The study concluded that combining a bubble curtain with an acoustic deterrent system has the best chance of success. This hybrid system can be calibrated to the hearing range of an Asian carp, making for a more effective repellent. These systems will be installed at multiple lock and dam locations along the river. Projected costs are in the tens of millions of dollars. The effectiveness of these systems remains to be seen. The entire study can be viewed online at: <http://www.dnr.state.mn.us>

More News from the Front Lines...

The pathogen that causes Sudden Oak Death (SOD) was found in Minnesota this year. Forty-one Walmart stores and local garden centers throughout the state were found to have plants infected with *Phytophthora ramorum*. The disease is spread by "foliar hosts" such as rhododendrons and camellias, which serve as breeding grounds for the innoculum. Many infected plants were sold prior to inspections. The USDA is targeting homeowners and Master Gardeners to be on the lookout for suspicious looking plants in the home landscape.

The USDA is proposing a new rule that would allow for an increase in the use of

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Asian Carp—

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the ozone-depleting pesticide, methyl bromide. The rule is being introduced to comply with international shipping standards developed under the International Plant Protection Convention. These standards were developed to combat the introduction of invasive pests in international shipping materials such as wooden crates and pallets. Asian longhorn beetle and pine shoot beetle are two examples of foreign pests that enter the United States by this

The plant resembles a huge version of Queen Ann's Lace but has an ugly attitude. The toxin contained in the sap from this plant causes severe blistering and painful dermatitis when exposed to the sun.

means. Methyl bromide use was to be phased out by January 1, 2005 under the 1987 Montreal Protocol Treaty. Environmentalists are fighting the proposed rule and have until the middle of November to file public comment on the proposal.

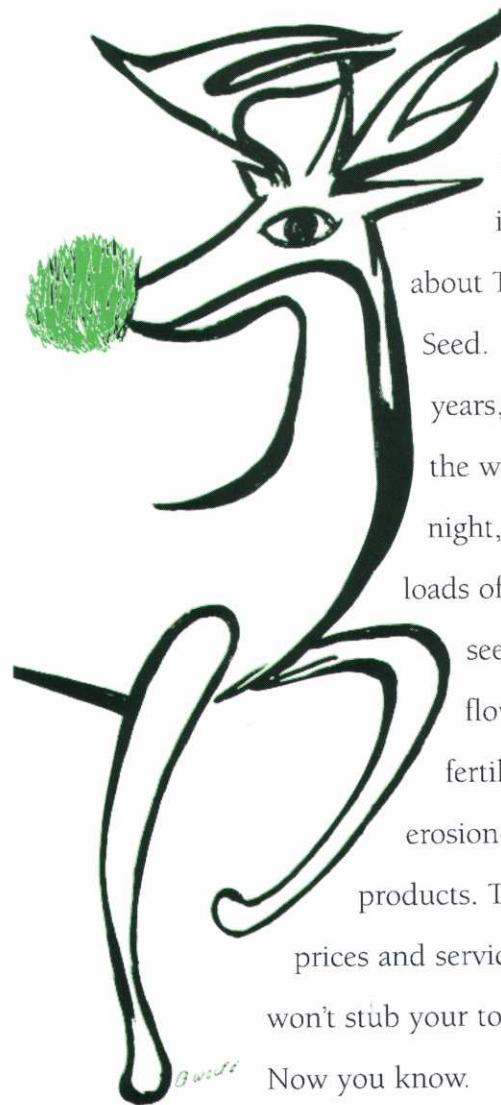
Giant Hogweed, *Heracleum Mantegazzianum*, is spreading into parts of Wisconsin and Michigan, from locations on the east and west coast. This plant originated from southwest Asia and escaped from ornamental gardens here in the U.S. The plant resembles a huge version of Queen Ann's Lace but has an ugly attitude. The toxin contained in the sap from this plant causes severe blistering and painful dermatitis when exposed to the sun. These blisters can develop into purplish or blackened scars. The photosensitivity of the afflicted area can last for years. Eradication is difficult due to a tenacious rootstalk and prolific seeding. Glyphosate is effective at killing the entire plant.

At the last MISAC meeting, Eric Nordlie of Bailey Nurseries shared some interesting news with the council. It appears that within the next two years, Bailey Nursery will no longer produce ash trees. That point reveals the seriousness of the approaching emerald ash borer front. The market for ash trees is simply disappearing!

(Editor's Note: Paul Diegnau, CGCS, is the MGCSA liaison to the Minnesota Invasive Species Council. MISAC is co-chaired by the MN Dept. of Agriculture and the MN Dept. of Natural Resources. The council was formed in response to Presidential Executive Order 13112 on invasive species, the National Invasive Species Management Plan, and Minnesota legislation that encouraged the state to plan and take action on invasive species.)

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