

EPA Starts Phasing Out Diazinon This Spring

Starting this spring, the U.S. Environmental Protection Agency will implement a plan to phase out use of the pesticide Diazinon, a leading cause of acute insecticide poisoning in humans and wildlife.

Diazinon is used for agricultural crops and to control insects and grub worms in lawns and gardens.

Because the product is highly toxic, those exposed to it may be at risk for acute insecticide poisoning. The EPA is concerned about household use because children may be exposed to Diazinon through inhaling vapors, airborne

particles, and skin contact. Professionals who use Diazinon are exposed to the insecticide during mixing, loading, and application; and risk post-application exposure during scouting, irrigation, cultivation, and harvest.

The chemical is highly toxic to birds, mammals, honey bees, freshwater fish, invertebrates, and insects.

The EPA agreed to phase out Diazinon in reaction to the 1996 Food Quality Protection Act. The agreement timetable is:

— For indoor household use, registration will be canceled in March 2001 and retail sales

will end by December 2002.

— For lawn, garden, and turf uses, manufacturing will stop in June 2003 and distribution to retailers will end by August 2003. In 2004, a product recovery program will complete the phase out.

— Manufacturing will decrease 25 percent in 2002 and 50 percent in 2003.

— The agreement will cancel about 20 current uses of Diazinon on food crops.

SOURCE: Larry Schulze, Ph.D., pesticide specialist, NU/IANR. (DJ)

Shock Chlorination of Domestic Water Supplies

Unlike public water supplies that are regularly tested to ensure the water is safe to drink, individuals or families using private water supplies are responsible for testing for contamination. If test results indicate bacterial contamination is occurring, shock chlorination is the most widely suggested method of treatment. Shock chlorination is the one-time introduction of a strong chlorine solution into the entire water distribution system (well, pump, distribution pipeline, hot water heater, etc.)

Shock chlorination is recommended:

- when lab results indicate a presence of bacteria;
- upon completion of a new well;
- when the distribution system is opened for repairs or maintenance;
- following contamination by flood water; or
- to control iron and sulfur bacteria.

Shock chlorination is recommended in these circumstances to ensure bacterial contamination is controlled.

For detailed information on shock chlorination, request the NebGuide, G95-1255-A "Shock Chlorination of Domestic Water Supplies," from your cooperative extension office or find it on the internet at <http://www.ianr.unl.edu/pubs/water/g1255.htm>. (DJ)

2001 Plants of the Year Winners Recommended for Nebraska

The penstemon, the oakleaf hydrangea, and the baldcypress are this year's winners of the Plants of the Year honors from the GreatPlants program.

The Plants of the Year Award highlights hardy plants with exceptional ornamental qualities. It's part of GreatPlants, a joint effort of the Nebraska Statewide Arboretum (NSA) and the Nebraska Nursery and Landscape Association.

Bob Henrickson, assistant director for horticulture programs at NSA, said winning plants are chosen for their ornamental value, hardiness, ease of maintenance, and availability. This year's selections are:

Perennial of the Year—penstemon. There are so many beautiful and hardy plants among the 270-plus species in this genus that the GreatPlants program selected the entire genus as the Perennial of the Year. Related to the familiar snapdragon, penstemon flowers generally are tube-shaped and typically grow in long, upright clusters. Plants range from dwarf, cushion-forming types desirable for rock gardens, to taller types such as Husker Red penstemon that are suited to traditional gardens or perennial

borders.

Every state in the continental United States has at least one native penstemon. Nebraska has 10 native species. Participating nurseries and garden centers will offer an assortment of the best species and varieties for Nebraska.

Shrub of the Year—oakleaf hydrangea (*Hydrangea quercifolia*). It is a dramatic shrub with numerous ornamental qualities. As the name implies, the bold, lobed foliage resembles large oak leaves. Dark green in the summer, leaves offer rich fall colors, from red to orange to purple. The white- to pink-colored flowers bloom in late June through July in large, drooping clusters that can be up to 12 inches long. The older stems can have attractive, peeling, cinnamon-colored bark. Oakleaf hydrangea grows four to eight feet tall, spreading as wide or wider through root suckers. Henrickson said it does best with some shade and mulching to maintain cool, moist root environment. It is most effective in a shrub border and in massed plantings.

Tree of the Year—baldcypress (*taxodium distichum*). It is a stately conifer that is hardy and adaptable in

landscape settings across Nebraska. Although a conifer-like pine and spruce, baldcypress is deciduous, dropping its foliage in the fall. It is relatively fast growing, reaching 50 to 70 feet tall. Mature trees are pyramid-shaped and widen at the base. Its fine textured leaves look like needles and are a soft sage green in the summer, turning to orange-tan before dropping in the fall. Native to wetlands from the Southeast United States north into Missouri and west into Texas, baldcypress does well in moist climates, but also is adaptable to dry, sometimes compacted soils throughout Nebraska.

For more information about the Plants of the Year, call (402)472-2971 or write the Nebraska Statewide Arboretum, P.O. Box 830715, Lincoln, Nebraska 68583-0715.

The NSA is a horticultural organization with endeavors and initiatives in education, the arts, community development, and the environment. It is a partnership between a private nonprofit membership organization and the University of Nebraska Institute of Agriculture and Natural Resources. (DJ)

Acreage Insights



Manure Handling

All livestock, large or small, produce manure. Livestock manure contains nutrients, such as nitrogen, phosphorous, potassium and sulfur that are useful to plants but can be harmful to the environment. The smell of manure may be offensive to the livestock owner, their family, or their neighbors.

Characteristics

Manure can be used to supply the above nutrients and needed secondary and micronutrients to plants for crops, pastures, and gardens. The amount of nutrients contained in manure depends on the livestock species, bedding or litter used, length of time it's stored before application to

the field, and the way it is applied. Manure usually contains more nitrogen and potassium than phosphorous. A notable exception is poultry manure, which is usually high in nitrogen and low in potassium. Manure is best utilized on non-legume plants, such as grass, corn, or oats.

Manure also provides a good source of organic matter to soils. Organic matter improves soil tilth, water, and nutrient-holding capacity. It also reduces wind and water erosion and promotes growth of beneficial soil organisms.

Use and Storage

Manure should be evenly distributed as determined by soil and manure testings. If you don't have land on which to apply the manure, locate a neighbor who could use it. If possible, keep livestock off a pastured area for three days after spreading manure to prevent potential parasite problems.

Application of manure to cropland or pasture should be done in the spring or early summer. If spreading must be done in the winter, it should be on flat areas where snow melt will not run off into ditches, lakes, or streams. Manure should be stored in a location where rainfall and snow melt will not leach from the area carrying water soluble nitrogen into surface or ground water supplies.

The smell and appearance of livestock manure is an issue. It should be stored, transported, and spread so as to minimize the impact of its odors and appearance. Store it behind buildings, fences, and other screens. Don't let it spill onto roads; and apply it away from other people's property and activities. In communities, there may be local ordinances that control manure's storage and use. Check with your local government unit for any rules that may apply. (DJ)

Squash Vine Borer

The squash vine borer, *Melittia satyriniformis*, is a common clearwing moth, which primarily attacks summer squash, winter squash, and pumpkins. The adults resemble wasps, and are approximately one-half inch long with orange- and black-striped abdomens. The first pair of wings is green metallic; the back pair is clear.

In mid- to late June the squash vine borer adults emerge from cocoons in the ground. The adult borers lay flat, brown eggs singly at the base of susceptible vine plants. Approximately one week later, the eggs hatch and larvae bore into the stems to feed. They feed through the center of the stem, blocking the flow of water to the rest of the plant. After feeding for four to six weeks, the one-inch, cream colored larvae exit the stems and burrow one- to two-inches into the soil to pupate until the following summer.

The first symptom of borers is wilting. Holes observed near the base of the wilting plant may be filled with moist greenish or orange sawdust-like material. The base may become mushy or rot over time.

Controlling squash vine borers is a challenge. Start by selecting unsusceptible winter squash varieties, such as Butternut, Royal Acorn, Table Queen, and improved Green Hubbard, and the following summer squash: Early Golden Bush Scallop, Early Prolific Straightneck, Early Summer Crookneck, and Summer Cheese. Do a second planting of summer squash in early-July after borers have finished laying eggs.

To detect adult squash vine borers in your garden, fill yellow pans, pails, or bowls with water. The adults are attracted to yellow and will fly into the container and become trapped in the water. This must be done while adult borers are flying.

Once adult borers are detected, take action. Place floating row covers or similar physical barriers over the plants when they start to vine to keep adult borers from laying eggs on the plants. Keep barriers in place for about two weeks. Do not use row covers when the crops are flowering, as this prevents bees from pollinating.

If using insecticides, dust stems at their base with carbaryl (Sevin dust) when vines begin to run (late-June or early-July); repeat in seven to ten days. The last effort to remove borers is labor intensive. As soon as you detect wilting, use a sharp knife to cut slits into the affected stem. Cut carefully until you locate the borer and kill it with the tip of your knife, then mound moist soil over the cut area. New roots may grow along the cut stem. Promptly pull out and destroy any plants killed by squash vine borers. (DJ)