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Ohio State University Extension Vegetable Crops
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Good News For Sweet Corn Growers by Doug Doohan

Syngenta Crop Protection of Greensboro, NC has just released a revised label for their Callisto Herbicide that permits preemergence (PRE) and postemergence (POST) applications to sweet corn. Callisto will control a wide range of broadleaf weeds including some that have been a great problem for sweet corn producers such as triazine resistant lambsquarters and pigweed. Sweet corn tolerance is best with PRE applications (6.6-7 oz/A). POST applications (3 oz/A) often cause short-lived chlorosis but yield has generally not been affected in Ohio research (more on Ohio research with Callisto, next week). POST applications control the greatest number of species and will likely be the treatment of choice for most sweet corn growers.

Callisto POST works best when weeds are actively growing and less than 5 inches tall. An adjuvant is always required when the herbicide is applied POST. In contrast to recommendations for field corn, only non-ionic-surfactants (NIS) are recommended with sweet corn. Crop Oil Concentrate (COC) may be substituted for NIS and will increase the level of weed control achieved especially under dry conditions but the risk of crop injury is increased under lush growing conditions. In Ohio research applying Callisto + NIS + 1/2 pint of atrazine (0.25 lb ai/A) before weeds were 5 inches tall provided excellent broadleaf weed control. Never use urea ammonium nitrate (UAN) or ammonium sulfate (AMS) with Callisto POST applications to sweet corn.

PRE applications of Callisto would be most appropriate in situations where a once-over herbicide application is needed. For instance when grass control is important and weather patterns are likely to prevent future POST applications, a tank-mix of Callisto at 6.7 oz/A with Dual II Magnum, Outlook or Bicep II Magnum would make sense. If emerged weeds are present at the time of a PRE application, include methylated seed oil (MSO) adjuvant along with either UAN or AMS to maximize the burn-down.

Callisto does not control grasses (except crabgrass) and is weak on species in the buckwheat family (smartweed is controlled). Dandelions, burcucumber, nutsedge and pokeweed are only partially controlled. Generally the best program in sweet corn will be Callisto at 3 oz/A POST + NIS + 1/2 pint of atrazine applied to small weeds. This treatment will also provide a good degree of residual control of later emerging broadleaf weeds.

Once Callisto has been applied do not cultivate for at least 7 days or weed control may be reduced. Do not apply Callisto POST to sweet corn that has been treated with

Lorsban of Counter and do not tank-mix Callisto with organophosphate or carbamate insecticides. Also, applying insecticides in these groups within 7 days before or after Callisto application may result in severe crop injury.

Mice damage in Plasticulture Strawberry By Brad Bergefurd, Extension Educator Horticulture, OSU South Centers, Piketon, Ohio

(Some information adapted from Agdex 683 Revised October, 1996)

http://www.wildlifemanagement.info/publications/mice_4.htm

The lowly mouse has caused Ohio strawberry growers major problems and economic losses throughout the winter of 2004/2005 with many growers finding the damage the past few weeks as floating row covers were removed. The damage caused by the mice has included chewing trickle irrigation tubing, chewing and damaging whole plants, crowns and root systems. Burrowing under the plastic mulch has led to numerous holes in the mulch and a loosening of the mulch due to the tunneling. Plastic mulch, floating row cover, organic matter from straw or rye mulch and heavy foliage provide an inviting home. Growers should remove weeds and other debris around fields which may harbor mice. From several visits to growers farms the past few weeks, damage has been most prevalent where a thick mulch whether straw or growing rye, practices common in the production of plasticulture strawberry, was in the field. If mice become a problem a variety of commercial traps and baits are available.

Damage caused by mice

Figure 1 Figure 2

Figure 3. Figure 4

Figure 1. Plant loss in strawberry plasticulture bed due to mice damage

Figure 2. Entry point on the side of the bed. Notice the soil deposited at the edge of the plastic from the tunneling mice.

Figure 3. Mouse tunnel in the top of the bed just under the plastic.

Figure 4. Tunnel from the edge of the bed directly to a dead strawberry plant, eaten by mice. All pictures by Brad Bergefurd.

Damage prevention and control methods

Mice are considered non-game mammals and receive no protection under existing pertinent legislation. It is usually permissible to control them when necessary, but first check with local authorities and on rodenticide labels.

Effective prevention and control of mouse damage involves three aspects: rodent-proofing construction, sanitation and population reduction.

Rodent-proofing

Mouse damage can be reduced by removing or limiting access to nesting areas, food sources and, escape and nesting areas.

Eliminate weed and other vegetative cover as well as debris and litter in and around homes, buildings, crops, lawns and other cultivated areas. Lawngrass and turf or orchard grass should be mowed regularly. Mulch should be cleared 1m (3 ft.) or more from the bases of trees.

Ditch banks, rights-of-way, and headlands need to be managed properly to control meadow voles which can reach very high numbers. Adjacent crops can be effectively protected by controlling nearby vegetation through mowing, grazing or spraying.

Bait stations

Bait stations or bait boxes may increase the effectiveness and safety of mouse baits because they protect bait from dust and moisture, keep other animals away and provide cover for mice eating the bait. Also, they allow bait placement where it would be otherwise difficult to set out, and they allow for easy inspection of bait consumption.

Bait stations can contain solid baits (food baits), liquid baits or both. Bait stations can be made at home or purchased from commercial suppliers. Manufactured bait stations can be made of plastic, cardboard or metal and are generally available at farm, hardware and horticultural retailers.

Homemade stations can be built from scrap materials to fit individual needs. Make them out of sturdy materials, so they cannot be easily knocked out of place or damaged. Be careful to construct bait stations so that the bait is accessible to rodents only. Clearly label all bait stations and, especially, permanent stations with, "Poison Do Not Touch".

Build bait stations large enough to allow several rodents to feed at once. They can be as simple as a flat board or piece of sheeting nailed at an angle to the bottom of a wall, or a length of pipe into which bait can be placed. Use these bait stations in bins, barns or other buildings. In bale stacks, place a piece of sheeting or plyboard over the bait, at an angle against a bale.

An empty, used tire with a small rock under it and a piece of plyboard or sheeting on top with a heavy object such as a large rock, makes a convenient bait station (see figure 5).

Bait stations should have at least two openings at opposite ends, approximately 2.5 cm (1 in.) in diameter. Always keep fresh bait in bait stations, or remove them from use.

Figure 5. Homemade bait stations

The best defenses against wildlife are to anticipate potential problems, carefully monitor your fields, and take appropriate actions when a problem is observed. For

more information consult your County Extension Office or your local wildlife authority. If you have experienced mice damage in your strawberry or vegetable plantings drop me an email we think this may be a wide spread economic problem that requires looking into further. Please contact Brad Bergefurd, bergefurd.1@osu.edu, 1-800-860-7232, 1864 Shyville Road, Piketon, Ohio 45661.

Crop Reports (Hal Kneen)

Growers are continuing to plant sweet corn on bare ground. Sweet corn planting started around the first of April under plastic and on bare ground for the last two weeks.

Tomato planting began last week into black plastic along the OH river but not yet on upland fields. Growers realize there is a slight risk but are looking for early harvest tomatoes. Some growers are delaying planting due to the forecast of cold weather this weekend with snow showers on Sunday

In the greenhouse there is some stretching of vegetable transplants mainly on tomatoes and peppers do to high outside temperatures in the mid 80s

Getting calls on chemical use and weed control for vine crops to control perennial weeds which should be controlled the previous year prior to planting.