

Strawberry Weed Management Update

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Introduction

The 2003-2004 version of the New England Small Fruit Pest Management Guide is available and all small fruit growers should have a copy of this publication. There were many revisions made to the strawberry weed management section. The major ones are explained below. In addition, there is a narrative on weed management during the summer months. All other information that will be presented in this talk can be found in the Small Fruit Guide. I expect that some copies will be available for sale at the Conference and copies are available from all 6 New England Extension services.

Major Herbicide Label Change

2,4-D Formulation Change: Amine 4 is the new formulation of 2,4-D amine (salt) available for use in strawberry. Formula 40 will no longer be available. There are many ester and low-volatile ester formulations on the market for other uses of 2,4-D. Be certain to NEVER use ester or low-volatile ester formulation of 2,4-D on vegetable or fruit crops. Both ester and low-volatile ester formulations of 2,4-D can move from the target area after application under warm weather or low humidity conditions. They have the potential to damage crop far from the site of application and their movement is unpredictable.

Gramoxone (paraquat) Formulation Change: Gramoxone Max 3S has replaced Gramoxone Extra for all uses. Label rates are generally lower than the old formulation since Gramoxone Max contains more active ingredient per gallon. As with the old formulation, the use of a non-ionic surfactant is still required. With Gramoxone, always remember that better weed coverage through the use of more water per acre will result in better weed kill.

Dacthal 75WP (DCPA): Dacthal herbicide was back on the market during 2002 and 2003 with all the previous labeling. The price of this product has more than doubled, however, rising to approximately \$14 per pound. One critical use of this product is on newly transplanted strawberry. The revised Sinbar label, described below, has somewhat lessened the need for Dacthal for broadleaf weed control but does not replace Dacthal for control of annual grasses. Because of the expense of this product, it will not be commonly used.

Sinbar 80 WP (terbacil): The supplemental label for strawberries has been revised to allow use during the transplant year as well as on soils with between 0.5% and 2%

organic matter. During the planting year, Sinbar may be applied at 2 to 3 ounces per acre after transplanting but before new runners start to root. If strawberry plants have developed any new foliage prior to application, irrigation or rainfall (0.5 to 1 inch) is required to wash the Sinbar off the strawberry plants. In late summer or early fall, a second application may be applied at 2 to 6 ounces per acre to control winter annual weeds. This application must also be followed by 0.5 to 1 inch of irrigation or rainfall to wash the Sinbar off the plants. A third application of 2 to 4 ounces per acre can be applied, as usual, after the strawberry plants are dormant and just prior to mulching.

For soils with at least 2% organic matter, there is no maximum amount per application; however, no more than 8 ounces of Sinbar can be applied per year. For soils with between 1 and 2% organic matter, a maximum of 4 ounces of Sinbar can be applied at any one time with an annual maximum of 8 ounces per acre. For soils with between 0.5 and 1% organic matter, a maximum of 3 ounces of Sinbar can be applied at any one time with an annual maximum of 6 ounces per acre.

Following the establishment year, applications can only be made just after renovation and just prior to mulching. Applications are now allowed, however, on soils with between 0.5% and 2% organic matter using the same guidelines for rates as above. As always, be careful with Sinbar in strawberries, especially with potential overlap of sprayer passes which will double the rate and increase the potential for injury in some varieties. Please consult the new supplemental label for additional information, rates, precautions, etc.

Strawberry Renovation Weed Management Advice

Following are weed management suggestions for strawberry plantings at renovation. Emerged broadleaf weeds can be controlled with 2,4-D (Amine 4) at 2 to 3 pts./acre applied immediately after the last harvest. Amine 4 is the ONLY 2,4-D formulation labeled for use in strawberries. Be extremely careful to avoid drift when applying 2,4-D. If this application is delayed, some damage to strawberries is also possible. Read and understand the label completely before applying Formula 40. If grasses are present at this time, sethoxydim (Poast) will control both annual and some perennial grasses. However, do not tank mix Poast and 2,4-D. Check the product label for rates and especially for precautions. Three to five days after the 2,4-D application, strawberry plants should be mowed.

Preemergence weed control should begin immediately after the plants are mowed and the soil is tilled to narrow the crop row. The most common practice at this time is to apply half the annual rate of terbacil (Sinbar at 4 oz/acre). It is essential that the strawberry plants are mowed, even if 2,4-D was not applied, to avoid injury from Sinbar. If regrowth of the strawberry plants has started, significant damage may result. Some varieties are more sensitive to Sinbar than others. If unsure, make a test application to a small area before treating the entire planting. Sinbar should not be used on soils with less than 0.5% organic matter or on reportedly sensitive varieties such as Guardian, Darrow,

Tribute, Tristar and possibly Honeoye. Injury is usually the result of too high a rate or overlapping of the spray pattern. If Sinbar is not used, napropamide (Devrinol at 4 lb/acre) or DCPA (Dacthal at 8-12 lb/acre) should be applied at this time. Dacthal is preferred over Devrinol if the planting is weak. If Sinbar is used, napropamide (Devrinol at 4 lb/acre) should be applied 4 to 6 weeks later. This later application of Devrinol will control most winter annual weeds that begin to germinate in late August or early September. Devrinol should be applied prior to rainfall or it must be irrigated into the soil. During the summer, Poast can be used to control emerged grasses. Cultivation is also common during the summer months. Cultivations should be shallow and timely (weeds should be small) to avoid root damage to the strawberry planting. The growth of strawberry daughter plants will also limit the amount of cultivation possible especially near the crop row.