

Strawberry Weed Management Update

A. Richard Bonanno, Ph.D.

UMass Extension

rbonanno@umext.umass.edu

Introduction

The 2010-2011 version of the New England Small Fruit Pest Management Guide will be available soon all small fruit growers should have a copy of this publication. Members of the New England Vegetable & Berry Growers Association can receive a copy of this publication free as part of their membership. This guide should be available by early April but the current and future versions are/will be available online at www.umass.edu/fruitadvisor . Copies will also be available from all 6 New England Extension services.

Major Herbicide Label Changes

Chateau (flumioxazin) is registered in strawberries. In DORMANT strawberries, the rate is 3 oz/acre. Chateau will provide preemergence control of many broadleaf weed species. If small broadleaf weeds are emerged, also apply a crop oil concentrate at 1% or a non-ionic surfactant at ¼% by volume. Chateau will control emerged chickweed, field pansy, and oxalis if sufficient contact is made with the weeds. 2,4-D may still be required to control other emerged weeds. A residual grass herbicide such as Devrinol (napropamide) or Dacthal (DCPA) is still needed. Chateau can also be applied with a hood or shield to row middles of non-dormant strawberries prior to fruit set. This includes strawberries grown on both matted row and plasticulture systems. DO NOT allow Chateau to come into contact with actively growing strawberry fruit or foliage.

Prowl H2O (pendimethalin) is registered in strawberries. Uniformly apply Prowl at a rate of 1.5 to 3 pints per acre to the soil surface PRE TRANSPLANT. Once the strawberries are established, an application may be made up to 35 days prior to harvest BETWEEN crops rows. DO NOT spray over strawberry plants. Application may cause stunting of daughter plants. Prowl provides excellent control of many annual grasses and several broadleaf species. See the label for a complete list of weeds.

Late Summer Planting of Oats

Also in strawberry, growers have been experimenting with using oats as a living or dead mulch. The purpose of this is to add organic matter and to help hold added mulch in the late fall from blowing away. It is not a weed management option. Some tips to follow. They include planting in mid-August at a rate of 100 lb/acre either broadcast or banded. Use of Sinbar, Devrinol (napropamide), or Dacthal at renovation will adversely affect the germination and growth of the oats. If possible, band the herbicides only in the row so that the oats can establish between the rows. Herbicide applications or other weed control options may still be required after establishment. Look for the oats to grow at least 18 inches tall. The oats will winter kill

Using Row Covers Instead of Straw Mulch

Growers that use row covers for winter protection should take extra precaution to insure that winter annual, biennial, and perennial weeds are not present in strawberry field during the winter months. Row covers will increase daytime temperatures and cause these weeds to grow at a much faster rate than if they were under straw mulch. This is especially true in the Spring before the covers are removed.

Specific Timings to Control Weeds

Late Fall/Winter: after the strawberries are dormant.

1. Apply Chateau or Formula 40 (2,4-D) to emerged weeds.
2. Apply half the annual rate of Sinbar
3. Apply half the annual rate of Devrinol

Spring Weed Management: up until bloom

1. The only common herbicide options at this time would be either Poast or Select for emerged grasses. Either will control volunteer rye or other small grains that emerged in the spring from seeds in the winter mulch.

Renovation Options:

1. Formula 40 applied just after the last harvest to control, emerged broadleaf weeds.
2. Apply half the annual rate of Sinbar after mowing and tilling.

Late Summer: prior to the emergence of winter annuals

1. Apply half the annual rate of Devrinol to control winter annuals before they emerge.

Cultivation

During the establishment year, cultivation is an important tool until daughter plants start to grow and root.

The most common time for using cultivation in established strawberry fields is from renovation until daughter plants start to root. If herbicides have been used, cultivations should be shallow to avoid diluting the herbicide. Even when herbicides are not used, cultivations should not be deeper than 1 to 2 inches to avoid damaging crop roots and drying out the soil.