

Weed Management in Pumpkins
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Introduction

The 2004-2005 version of the New England Vegetable Management Guide is available and all vegetable growers should have a copy of this publication. All of the new label changes have been included in this publication. The most significant label changes are for two newer herbicides, Strategy and Sandea. Information on these is provided below. Although this is a pumpkin talk, I have left certain details that pertain to other cucurbit crops in the narrative below. All other information that will be presented in this talk can be found in the Vegetable Management Guide. I expect that copies will be available for sale at the Conference and copies are available from all 6 New England Extension services. Members of the New England Vegetable & berry Growers will receive this publication as part of their membership dues.

Significant Recent Label Changes

Strategy (ethalfluralin + clomazone): This label came out during 2002 and the product was extensively throughout New England during 2002 and 2003. Strategy is a premix of Curbit (ethalfluralin) and Command (clomazone). It is intended for preemergence control of annual grasses and many broadleaf weeds in cucumber, melon, pumpkin, summer squash, winter squash, and watermelon. Broadleaf weeds controlled include, common lambsquarters, pigweed, common purslane, velvetleaf, common ragweed, and Pennsylvania smartweed. This product may be applied to the soil surface after direct seeding on bare ground. It may also be banded between plastic for both direct-seeded and transplanted crops. The formulation of Command contained in this product is the ME (microencapsulated) formulation which does not need to be incorporated. There are many precautions on the label including some replant precautions. For squash and pumpkin, this product will be the treatment of choice since it controls so many weed species. In cucumber and melon, however, Curbit tank-mixed with Alanap (naptalam) may still be a good option since most of the same weeds are controlled but the carryover concerns with clomazone are not present.

Sandea 75WSG (halosulfuron): The new label covers cucurbits, tomatoes, fruiting vegetables, asparagus, dry beans, and snap & lima beans. Sandea provides preemergence and postemergence control of many weeds. Most weeds are controlled by either a preemergence or postemergence application; however, common lambsquarters is controlled best by a preemergence application while yellow nutsedge is controlled best by a postemergence application. Postemergence applications require the use a non-ionic surfactant at a rate of 1 quart per 100 gallons spray mix. Heavy rains following preemergence applications can lead to severe crop injury. There is the potential for crop stunting and a slight maturity delay with the use of Sandea over the top of the crop. Growers should limit their use of Sandea initially to gain experience. Use the correct amount of product per acre. The most common use rate will be _ ounce per acre. If the directions are not followed, the potential for severe crop injury does exist. A brief summary of use directions follows follows and can be found in the New England Vegetable Management

Guide. Consult the label for complete directions. Consider using Sandea only if current management strategies are not working or as a supplement to existing management strategies to control certain problem weeds. This herbicide may carryover to the following year and can cause severe injury in crucifers, greens, spinach, beets, carrots, onions, and other crops. See the label for details.

Pumpkins and Winter Squash: Apply postemergence when the seeded crop has 2 to 5 true leaves. Crop injury and some delay may result. Can also be used preemergence after seeding; however excess rainfall or irrigation may cause unacceptable crop stunting. Can also be used between plastic mulch with direct-seeded or transplanted winter squash and pumpkins. Perhaps the best fit for this product in winter squash and pumpkins is for postemergence control after preemergence use of another product (Curbit, Strategy, Prefar, or Command). Sandea will provide postemergence control of yellow nutsedge, redroot pigweed, velvetleaf, common ragweed, and many other broadleaf weeds

Cucumbers: Apply preemergence after seeding and before crop emerges. Can also be applied when a seeded crop has 2-5 true leaves but the potential for crop stunting and yield delay should limit postemergence use to areas where weed pressure is high and yield reductions due to weeds would be unacceptable. Can also be used between plastic mulch with direct-seeded or transplanted cucumbers. In cucumbers, with a shorter life cycle than most other cucurbits, it might make sense to use this product preemergence alone or in addition to Strategy, or Curbit, or Alanap

Summer Squash, Muskmelons, Watermelons: Apply between rows of plastic mulch avoiding contact with the plastic and crop. May also be used in row middles without plastic; any crop contact or use in the crop row will cause injury.

Please read the label entirely regarding application directions and precautions. Accurate measurement and application is essential to minimize crop stunting and delay. A plastic measuring cup should be included with the herbicide container. Results during 2002 in Massachusetts and throughout New England in 2003 on winter squash, cucumbers, and pumpkins were generally favorable although some severe injury did exist. Crop stunting was common but plants, in most cases, recovered with only a slight or no yield delay.

No-till Pumpkin Production

Many growers have tried growing pumpkins with no tillage. This generally requires the use of the cover crops that must be killed, use of a preemergence herbicide, and potential use of a postemergence herbicide. Both the Strategy and Sandea registrations have made no-tillage more successful in recent years since cultivation is not an option. Overall, current herbicide options are the same as for bare ground systems.