

# WEED MANAGEMENT UPDATE FOR STRAWBERRIES

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Late winter always bring about thoughts of the upcoming growing season. We decided that this would be an opportune time to jump-start the weed management generator. Included here are some important chemical management updates along with some very simple ideas to help manage your weed populations through an integrated approach.

## Cultural

Establishment year in strawberries is very difficult because commonly used production systems lend themselves to be out-competed by weeds (particularly the matted row system). One of the most effective means by which to reduce weed (and overall pest) pressure is to rotate your production fields. Three key ingredients for rotations include: 1) rotate out of berries for as long as possible between plantings, 2) avoid rotating with crops that host strawberry pests, and 3) include cover crops in the rotation (Grubinger, 2005). First, rotations break a static growing environment and place pressure on weeds through competition. Secondly, benefits from cover crop use have been well documented in research and a recent trial has demonstrated that inter-seeding a cover crop has competed well with weeds (Pritts & Kelly, 2001). **Avoid allowing weeds to go to seed should be the underlying goal of any long-term management decision.**

## Mechanical

Use of cultivation is a very effective tool in reducing weed populations. Research tells us that the first 2 months after planting is the critical weed-free period (Pritts & Kelly, 2001). Sole reliance on cultivation equipment during this time period is difficult (especially in a wet spring), but possible. A 2006 field trial determined that integrating mechanical cultivation combined with banded herbicides can be more effective in reducing weed pressure than reliance on broadcast herbicides alone (Bellinder & Benedict, unpublished). To see some photos and descriptions of a variety of cultivation equipment check out: <http://www.hort.cornell.edu/department/faculty/bellinder/new%20cultivation%20mech.pdf>

## Chemical

There are some promising new chemistries that will be available to New York Growers in the next couple of years. We have tested these products in our field trial that was planted in the spring of 2006. For 2007, the grass herbicide Select<sup>®</sup> will now be registered as Select Max<sup>®</sup> and will not need to be applied with a crop oil concentrate. A new product Chateau<sup>®</sup> WDG may be available in the second half of the 2007 growing season after the DEC reviews the product.

In a 2006 field trial, we evaluated several herbicides that are not currently registered for strawberries to expand available products for producers. We were able to test Chateau<sup>®</sup> WDG and observed very good control of hairy galinsoga and shepherd's purse. Chateau<sup>®</sup> will most likely be registered as a 30 day pre-transplant, fall/spring dormant, and hooded between-row application. We tested Chateau and applied it within 24-hours of transplanting and observed good crop tolerance. Table 1 outlines the spectrum of control of registered products and how Chateau<sup>®</sup> may fit into your herbicide program.

Table 1.<sup>a</sup>

Product	Broadleaf							
	Lambsquarters	Purslane	Ragweed	Pigweed	Galinsoga	Mustards	Nightshades	Velvetleaf
<b>Pre-emergent</b>								
Dacthal	G-E	G-E	P	F-G	P	P	F	P
Devrinol	E	G-E	P-F	G-E	F	P	P	P
Sinbar	F-G	F	F	P	P	G	F	P
Chateau	E	E	F*	E	P	G	E	F*
<b>Post-emergent</b>								
2-4,D	G	G	G	G	G	G	E	E
Stinger	P	P	E	P	P	P	E	P
Select	P	P	P	P	P	P	P	P
Fusilade	P	P	P	P	P	P	P	P
Roundup	E	E	E	E	E	E	E	E
Gramoxone Max	E	E	E	E	E	E	G	G
Scythe	E	E	E	E	E	E	G	G
Poast	P	P	P	P	P	P	P	P

Product	Annual grasses				Perennials
	Barnyardgrass	Crabgrass	Fall Panicum	Foxtail sp.	Y. nutsedge
<b>Pre-emergent</b>					
Dacthal	F-G	E	F-G	F-E	P
Devrinol	E	E	E	E	P
Sinbar	P	G	F	F	P-F
Chateau	F*	F*	F*	F*	P
<b>Post-emergent</b>					
2-4,D	P	P	P	P	P
Stinger	P	P	P	P	P
Select	E	G	E	E	P
Fusilade	G	G	G-E	G-E	P
Roundup	E	E	E	E	F
Gramoxone Max	E	E	E	E	G*
Scythe	G	G	G	G	G*
Poast	G	F	G	G	P

\*Suppressed

<sup>a</sup>This table is based on applications made under varying conditions and does not necessarily outline results under all conditions.

## References

**Colquhoun, J. and R.R. Bellinder. 1997.** New Cultivation Tools for Mechanical Weed Control in Vegetables. <http://www.hort.cornell.edu/department/faculty/bellinder/new%20cultivation%20mech.pdf>

**Grubinger, V. 2005.** Proceedings New England Vegetable and Fruit Conference.

**Pritts, M. and M.J. Kelly. 2001.** Early Season Weed Competition Reduces Yield of Newly Planted Matted Row Strawberries. HortSci 36(4): 729-731.