## http://ipm.osu.edu/fruit/index.html



# Newsletter Extension



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## Calendar

November 3: Ohio Vegetable & Potato Grower Association Board Meeting, contact Mike Pullins, (614) 249-2424.

December 16: Fruit & Vegetable Policy Development Meeting, contact Mike Pullins, (614) 249-2424.

January 13-14, 2000: Greenhouse Food Production Workshop, OARDC Fisher Auditorium, Wooster. Contact Mary Donnell, (419) 354-6916,

February 7-9: Pre-Conference Tours for the Ohio Fruit & Vegetable Growers Congress in conjunction with the North American Farmer's Direct Marketing Conference and Ohio Roadside marketing Conference, Cincinnati, OH. Featuring Fultons Farm Market, 1200 acre show place of specialty crops; Jungle Jim's, the most unusual grocery store in America, with 4 acres of international food and adventure attractions all under one roof; Rothschild Berry Farm, which markets gourmet raspberry products around the world; also Kentucky Horse Park, Willowcreek Goat Farm, and Freshwater Farm, Ohio's largest indoor producer and marketer of live and processed fish. For information contact Mike Pullins at (614) 249-2424.

February 10-12: Ohio Fruit & Vegetable Growers Congress, Cincinnati, OH. More details later.

# **Drought Conditions in Ohio as of Oct 15th**

**Category of Drought** Region

NW Ohio Moderate WCentral Ohio Severe SW Ohio Moderate SCentral Ohio Moderate Central Ohio Severe

NCentral Ohio Near Normal
NE Ohio Near Normal
Central Hills Near Normal
NE Hills Moderate
SE Ohio Moderate

Source: http://www.cpc.noaa.gov/products/analysis\_monitoring/regional\_monitoring/palmer.gif

# Weed Control in Matted Row Strawberry Production Systems: August to December

Source: Richard C. Funt, Department of Horticulture & Crop Science, Ohio State University, Columbus

### Introduction

Weed control in strawberries is a major management problem for most growers. The strawberry plant and, ultimately, high yields are affected by weeds which compete for water, nutrients, and sunlight. The concept of controlling weeds in late summer in strawberries was introduced by Dr. Ed Beste at the University of Maryland in the 1970's. Methods of weed control included cultivation, chemical herbicides, and hand weeding when necessary. This article deals with reducing the winter annual weed population in late summer. These types of weeds can cause problems in early spring before bloom.

For both newly-set and established strawberry matted row systems, late summer is the time to cultivate or hand remove weeds and apply herbicide treatments to control weed seeds in the soil. Applying herbicides to weed free soil can increase herbicide coverage and weed control. Residual herbicide recommendations were excellent for Dacthal in the past and now for Devrinol. Use Devrinol at 50% WP at 6 to 8 pounds per acre plus 1/2 inch rainfall or irrigation within 3 to 4 days of application. The use of 2,4-D is not recommended in August or September.

For Ohio, August 15 is a biological time when daughter plants need to be well rooted and have a full leaf canopy. Any daughter plant established after August 15 has no economic value for the next season. Since Devrinol can affect rooting of daughter plants, the use of Devrinol at this time does not have an economic impact on the next year's crop. Irrigation and nitrogen fertilizer can also be applied to prepare the plants for optimal flower bud formation, which begins in early September.

For Ohio growers who have actively growing broadleaf weeds after October 15, 2,4-D has been recommended. There have been no reports of plant damage or poorly shaped fruit in the following harvest. However, weeds must be actively growing with warm days of 55°F in order for good control. More research on the harmful effects of 2,4-D on strawberries needs to be conducted.

In late November, after three hard frosts (low temperatures of 24° to 28°F), strawberry growers can apply a residual herbicide, as either Sinbar or Devrinol or Sinbar plus Devrinol before the straw mulch is applied. Applying herbicides over straw mulch is not as effective as applying it directly onto soil. Do not apply residual herbicides to frozen soil. There is no need to apply 1/2 inch of water to Devrinol at this time because the straw cover reduces the sunlight which degrades the chemical. These residual herbicides, applied to weed free soil, can maintain good weed control until April 1st. There does seem to

be a benefit of applying both Sinbar and Devrinol. Apply Sinbar at 2 to 4 ounces per acre plus Devrinol at 8 pounds per acre if you are suppressing groundsel. These late fall herbicides at these rates may not control winter annuals. They primarily provide residual control in the spring.

To keep weed seed from coming into the strawberry field, *clean* straw mulch is essential. Many strawberry fields are prime sites for Canadian thistle, grain from the straw, or other difficult weed seeds which are scattered with contaminated straw. Rye has proven to be a good source of mulch for strawberries. First, it contains allelopathic substances for suppressing certain weed seeds. Second, growers cut and bale the rye straw for strawberry mulch before it comes into the seeding stage and before persistent weeds produce seeds. And third, one can produce a large amount of straw in a small area. Rye straw appears to be just as good as wheat straw for strawberries when applied with a mechanical mulcher and at a reasonable depth of 2 to 3 inches.

In 1998 and 1999, Ohio received a Section 18 for the use of Goal 2XL herbicide for groundsel and oxalis control. It can be mixed with Devrinol. It has both post-emergence and pre-emergence control of broadleaf weeds when applied at 1 pint per acre in at least 20 to 40 gallons of water. Strawberry plants must be dormant (no active leaf or leaves have turned color) during application. Ohio growers who used Goal in 1998 at renovation or on dormant plants in late fall found that Goal is excellent on field violet, oxalis, and groundsel.

Identifying and understanding weed growth and development can be economically important to growers who use the matted row system of strawberry production. Prior to planting, crop rotation is important. Growing a grain crop, either corn (field or sweet), wheat, or rye can be beneficial. Wheat or rye straw can be stored and used for strawberry plant mulch. Applying residual herbicides in mid-August have proven to be effective in reducing certain weeds, known as winter annuals. Use clean, weed-free straw mulch. In late fall, herbicides reduce weeds which grow in early spring. Remove the straw mulch in early April and apply a residual herbicide and/or systemic herbicide before bloom to reduce weeds during harvest.

# Terminal Market Wholesale Fruit Prices October 21, 1999

Chicago: http://www.ams.usda.gov/mnreports/HX_FV010.txt					
Apples - market about steady	Pears	Peaches			
Cartons 12 3-lb filmbags -	California and Washington only	25 lb Cartons New Jersey			

<sup>&</sup>lt;sup>1</sup>Disclaimer: Where trade names are used, no discrimination towards similar products is implied or intended. Recommended rates of chemicals are based on research and/or manufacturers' labels. Users of this information are urged to read all labels and follow their state extension service guidelines. Authors are not liable for crop damage or misuse of chemicals.

<sup>&</sup>lt;sup>2</sup>Appreciation is extended to Dr. Douglas Doohan for his review of this article.

Michigan US Fancy Red Delicious 2 ½" min 8.00 - 10.00, few higher & lower

Golden Delicious 2 ½" min 8.00 -10.00, fair appearance 7.00

Jonathan 2 ½" min 8.00 - 10.00, few higher and lower

McIntosh 2 ½" min 10.50-11.00, some 8.00 - 9.00

Gala 2 ½" min fair appearance 7.00

Cartons cellpack New York US Extra Fancy McIntosh 80's 23.00

96's 22.00

Bushel cartons loose No Grade Marks - Michigan No Size Marks-Red Delicious 9.00 -10.00, some 8.50

No Size Marks-Golden Delicious 9.00 - 10.00, some 8.50

No Size Marks-Jonathan 9.00 -10.00, some 8.50

No Size Marks-

U.S. ExOne various yellow flesh varieties

2 ½" min 12-14.00

McIntosh 10.00, few higher and lower  No Size Marks- Gala 9.00 - 10.00, some 8.50  No Size Marks- Jonagold 9.00 -		
10.00, some 8.50	Detroit: http://www.ams.usda.gov/m	nrenorts/DIT FV010 txt
Apples - market about steady	Pears	Peaches
Cartons cellpack - New York U.S. ExFancy McIntosh 100s few 20.00  Empire 100s few 20.00  Cartons 12 3-lb filmbags Michigan US ExFancy Red Delicious 2 1/2" min 10.50 - 12.00, mostly 11.00  US Fcy Red Delicious 2 ½" min 9.00 - 10.00, mostly 10.00  Golden Delicious 2 ½" min 10.00 - 12.00, mostly 10.00 - 10.00, mostly 10.00 - 10.00, mostly 10.00 - 12.00, mostly 10.00 - 12.00, mostly 10.00 - 11.00  Jonathan 2 ½" min 10.00 - 12.00, some 9.00  McIntosh 2 ½" min 10.00 - 12.00,	California and Washington only	1/2 Bushel Cartons New Jersey US ExOne various yellow flesh varieties 2 3/4" up, fair cond. 5-6.00

mostly 10.00-11.00 Idared 2 ½" min 10.00, some 9.00 Empire 2 ½" min 10-12.00, mostly 10.00 Gala 2 ½' min 13.00 **Bushel Cartons** Loose - Michigan No Grade Marks Red Delicious 2 3/4" up 12.00, few 10.00 Red Delicious 2 1/2" up 10.00 -12.00, mostly 10.00 - 11.00 Red Delicious 3" min 12.00 Golden Delicious 2 3/4" up 12.00, few 10.00 Golden Delicious 2 ½" up 12.00, few lower Jonathan 2 3/4" up 11.00-12.00, some 10.00 McIntosh 2 3/4" up 11.00 - 12.00 McIntosh 2 ½" up 10.00, some 8.00

Empire 2 ½" up 10.50-12.00,

mostly 10.50 - 11.00 Empire 2 3/4" up 12.00						
Pittsburgh: http://www.ams.usda.gov/mnreports/PS_FV010.txt						
Apples - market steady	Pears	Peaches				
Cartons 12 3-lb filmbags New York US ExFancy		10 2-lb filmbags NY Seckel 9.50	California only			
Golden Delicious 2 ½" min 10.50-11.00		½ bushel cartons NY Seckel 9.50				
Jonathan 2 ½" min 1	10.50 - 11.00					
McIntosh 2 ½" min	10.50-11.00					
Gala 2 ½" min 12.50	0-13.00					
Jonamac 2 ½" min 1	0.50-11.00					
Pennsylvania US Ex	Fancy					
Golden Delicious 2	3/4" up 12-13.00					
Gala 2 3/4" up 12-13	3.00					

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Information presented above and where trade names are used, they are supplied with the understanding that no discrimination is intended and no endorsement by Ohio State University Extension is implied. Although every attempt is made to produce information that is complete, timely, and accurate, the pesticide user bears responsibility of consulting the pesticide label and adhering to those directions.

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