

# Identification and Control of Honeyvine Milkweed (*Ampelamus albidus*) in Virginia

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## IDENTIFICATION

A perennial with slender, twining stems that may reach 10 feet in length. Leaves are 3-7 inches long, 1.5-5 inches wide, opposite, entire, and heart-shaped (4). Leaves do not have hairs and occur on petioles that are 1-4 inches long. Leaf surfaces have conspicuous white veins that arise from a common point (palmate venation) (1). Flowers are small (2-3 mm broad), white, numerous, and occur on flower stalks that arise between stems and leaves (axillary). The fruit is a smooth, angled follicle that is 3.5-5 inches long, 1-2.5 inches wide (4). Roots from a clustered fibrous underground rootstock capable of vegetatively reproducing additional plants (4,2). Although the name implies a secretion of milky sap as in other milkweed species (*Asclepias* spp.), this does not occur in the leaves or stems of honeyvine milkweed. This weed is often incorrectly identified as field bindweed (*Convolvulus arvensis*).



## CONTROL IN CORN

Experiments conducted in no-till corn fields throughout Virginia reveal that similar levels of season-long honeyvine milkweed suppression may be achieved with applications of Permit<sup>®</sup>, Exceed<sup>®</sup>, or Callisto<sup>®</sup> when these herbicides are applied with either Banvel<sup>®</sup> or Distinct (Table 2). Additional research conducted in Virginia has revealed that a mid-May application of Roundup Ultra<sup>®</sup> to Roundup Ready<sup>®</sup> corn hybrids affords only initial suppression of honeyvine milkweed and regrowth is likely to occur. This suggests that the timing of herbicide application is an important component of a successful control program. This was confirmed in herbicide application timing studies, where significantly higher levels of honeyvine milkweed control were achieved when herbicides were applied in the pre-bloom (late-June) and early-bloom (mid-July) stages of growth (Figure 1). Based on these experiments, adequate control of seedlings or sprouts arising from underground rootstocks should not be expected until these plants reach at least 1-2 feet in height, and highest control should be attained when plants are treated in the early bloom stage of growth (2). Unfortunately, treatment at this time is often impossible due to the typical size of corn in early- to mid-July when honeyvine milkweed plants have reached this stage of growth. Therefore, where severe infestations exist, growers may be required to consider applications in fallow or the use of a genetically altered crop. For example, honeyvine milkweed can be controlled effectively in corn using Lightning<sup>®</sup>. This combination of two imidazolinone herbicides does, however, require the use of an IR<sup>®</sup> or IT<sup>®</sup> corn hybrid, and its use may restrict rotation to subsequent crops.



Table 1. Effect of sequential annual herbicide applications on honeyvine milkweed control in Kansas (5).

Herbicide(s)	Rate/A	Control <sup>a</sup> 1YAT <sup>b</sup>		
		1 trtmt.	2 trtmts	3 trtmts
------(%)-----				
2,4-D	2 qts	59	36	73
Banvel	1 qt	59	50	88
Roundup + 2,4-D	1.5 qt + 1 qt	79	69	89
Roundup + Banvel	1.5 qt + 1 pt	90	81	88
2,4-D + Banvel	1 qt + 1 pt	58	51	77

<sup>a</sup> Control calculated from stem density counts following treatment as the % of the pretreatment density

<sup>b</sup> YAT = year after treatment



Figure 1. Effect of timing of 2,4-D applications on honeyvine milkweed control in corn (2).

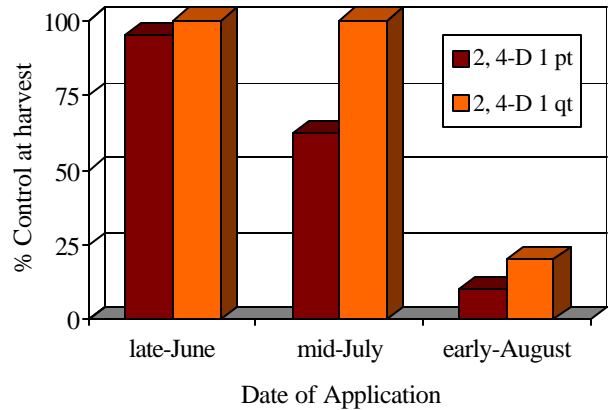


Table 2. Honeyvine milkweed control in no-till corn with POST herbicides in Middlesex County, Virginia (3).

Herbicide <sup>a</sup>	Rate/A	End of Season H. Milkweed Control
2,4-D	1/2 pt	54
2, 4-D	1 pt	51
Banvel	1/4 pt	51
Banvel	1/2 pt	45
Distinct	6 ozs	53
Exceed	1 oz	46
Exceed + Banvel	1 oz+1/4 pt	74
Exceed + Distinct	1 oz + 6 ozs	75
Exceed + 2, 4-D	1 oz + 1/2 pt	58
Permit	1 1/3 ozs	48
Permit + Banvel	1 1/3 ozs+1/4 pt	79
Permit + Distinct	1 1/3 ozs + 6 ozs	83
Permit + 2, 4-D	1 1/3 ozs + 1/2 pt	83
Beacon	3/4 oz	48
Beacon + Banvel	3/4 oz+1/4 pt	59
Beacon + Distinct	3/4 oz + 6 ozs	74
Beacon + 2, 4-D	3/4 oz + 1/2 pt	76
Callisto	0.094 lbs ai	48
Callisto + Banvel	0.094 lbs ai + 1/4 pt	78
Callisto + Distinct	0.094 lbs ai + 6 ozs	89
Callisto + 2, 4-D	0.094 lbs ai + 1/2 pt	63
LSD (0.05):		10

<sup>a</sup>All Exceed, Permit, Beacon, and Callisto treatments applied with 1/4 % (v/v) non-ionic surfactant.

## CONTROL IN SOYBEANS

Relatively few options are available for the selective control of honeyvine milkweed in soybeans. Where appropriate, tillage to disrupt the underground rootstock will greatly enhance the effectiveness of herbicide treatments. Diphenyl ether herbicides such as Blazer<sup>®</sup>, Reflex<sup>®</sup>, and Cobra<sup>®</sup> will provide some suppression of honeyvine milkweed via desiccation of foliage, but regrowth from underground rootstocks will occur. A more effective alternative for the control of honeyvine milkweed in soybeans is the application of Roundup Ultra<sup>®</sup> to a genetically engineered Roundup Ready<sup>®</sup> soybean variety. The suppression afforded by the highest labeled rates of Roundup Ultra<sup>®</sup> coupled with the competitive effects of good soybean canopy closure, should provide control or good suppression of this weed.

## CONTROL IN FORAGES

Honeyvine milkweed is rarely encountered in Virginia pastures or hayfields. However, small infestations should be treated with a 2% v/v Roundup Ultra<sup>®</sup> solution before this hard-to-control perennial weed spreads further.

## REFERENCES

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5. Moshier, L.J., O.G. Russ, J.P. O'Connor, and M.M. Claassen. 1986. Honeyvine milkweed (*Ampelamus albidus*) response to foliar herbicides. Weed Sci. 34:730-734.

\*The use of trade names in this publication does not imply endorsement of the product named or imply criticism of similar ones not mentioned.