

Herbicide Options for Pumpkins and Squash

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Here we go again talking about weed control with herbicides in our pumpkin and winter squash crops. It's the same thing every year, but I think 3 keys to having a weed free or acceptable weed levels in your vine crop fields are, **field preparation, application timing and moisture!** This is what I mean:

- 1.) Fit and plant the field as closely together as possible. Do not fit the field and let it sit for more than 2 or 3 days before planting it as this will allow weed seeds to germinate. Most of these products' are seed germination inhibitors and activity and efficacy is reduced when seeds are already germinated.
- 2.) Do not delay your herbicide application for more than a day after planting! The same reason applies—this gives seeds time to germinate and reduces their activity. Planting and spraying your herbicide within a day will improve weed control.
- 3.) Finally and probably the most critical, **moisture:** All of these materials require either a rain or irrigation after application in order to "activate" them. Not only does this activate the herbicide, but it also activates seed germination. If it looks like there is no rain coming for a while and you don't have irrigation, my suggestion is to go ahead and still get the herbicide on. It's better than waiting for a rain and if worse comes to worse you can always irrigate it in!

I'm still a firm believer in using tank mixes instead of just one product alone with the exception of Strategy which already has 2 different active ingredients premixed (clomazone/Command and ethalfluralin/Curbit). Many of these products have a narrow range of weeds they target so tank mixing a couple of them improves overall weed control. Tank mixes that we think have potential for pumpkins and winter squash are:

- Sandea (Profine is the generic version) plus Dual Magnum plus Command 3ME – great for pumpkins, winter squash and other fall ornamentals
- Sandea plus Command ME or Strategy plus Sandea – also safe on the above
- Another combination would be Command 3ME, Dual Magnum plus Reflex – however, I would only use this on pumpkins. **Do not use on butternut squash or those varieties in the Maxima family (kabocha, Jardale, Big Moose etc.) as too much injury can occur.**

As always, please read the label carefully and if you have questions about what you read below, please do not hesitate to call me at 518-859-6213 and I will do my best to answer them.

Table 1: Recommended Pre-Emergent/Post Seeding Herbicides for Pumpkins and Winter Squash				
Product	Crops	Weeds controlled	Rate	Comments
Sandea, Profine 75 (halosulfuron)	All cucurbits	Broadleaves (pigweed, velvetleaf, etc.)	0.5 - 1.0 ounces per acre	Needs to be mixed with a grass herbicide when used pre-emergent. Can stunt and delay emergence especially at higher rates but temporary (I recommend 0.5 oz rate), short residual of about 4 weeks, will start to see some weed species breaking through (common lambsquarter, Eastern black nightshade) around the 4th of July. Using a 0.5 oz. once pre-emergent allows you to use another 0.5oz. once post emergent.
Dual Magnum (S-metolachlor)	Pumpkins, winter squash	Mostly grasses and some broadleaf suppression	2/3—1.33 pints per acre depending on soil type	PLEASE SEE OTHER NOTES ON DUAL MAGNUM! I have seen very good results and limited injury using the 1.0 pints per acre rate. <u>Do not incorporate</u> as this increases the risk of severe injury! Best if used as a post plant pre-emergent and can be used post-transplant within 72 hours of planting (weed seed germination issues).
Command 3ME (clomazone)	All cucurbits	Annual grasses and some broadleaves	2/3—1.33 pints per acre depending on soil type	Labeled on all cucurbits (Label actually says “Do not use on Jack-O-Lantern pumpkins” because the companies distributing this product will not accept liability for potential off-color responses that have been observed in numerous varieties). I find that the 1.0 pint per acre rate is used and provides good control. Do not incorporate! The ME (micro-encapsulated) formulation does not need to be incorporated! May be used prior to seeding or transplanting (make sure transplant is planted below the chemical barrier) or post seeding but before crop emerges.
Curbit EC (ethalfluralin)	All cucurbits	Mostly annual grasses and some broadleaf suppression	3.0—4.5 pints per acre depending on soil & organic matter level	Use as a post plant pre-emergent application only within 2 days of planting or banded application between rows after crop emergence or transplanting (be very careful of drifting onto the crop). Do not use under plastic mulches or rowcovers. Cold, wet soils can increase injury or even result in crop failure! Label recommends using a minimum of 20 gals/acre fixed spray volume. Weed control may be reduced on soils with organic matter over 5%. Not recommended for soils with more than 10% organic matter.
Strategy (Pre-mix of Command and Curbit) (clomazone + ethalfluralin)	All cucurbits	Most annual grasses and some broadleaves	2.0 - 6.0 pints depending on soil texture	I would recommend no less than 4 pints/acre. Do not incorporate, recommended as a post plant pre-emergent or banded application between rows after emergence or transplanting. Do not broadcast apply and then transplant into treated soil as severe injury will occur. It can also be banded to row middles after a cultivation. Do not let this material freeze in storage as it could potentially settle out and clog your sprayer screens, tips etc. Label also recommends to use 10 to 30 gallons per acre finished spray volume. Be sure to check the label as there are crop rotational restrictions that are rate dependent.
Reflex (fomesafen)	Pumpkins and winter squash except butternut	Broadleaves and some annual grass suppression	0.5—1.0 pints per acre	24C Special Local Needs label on pumpkins, summer squash and most varieties of winter squash but <u>do not use on butternut</u> . For direct seeded crops you need to apply to the row middles only or leave the area over the seed furrow untreated. Do not use as a broadcast application on direct seeded pumpkins or squash! However, for transplants you can use it as a pre-transplant non-incorporated pre-emergence (weed seeds) broadcast application up to 7 days prior to transplanting. Do not exceed 1 pint per acre of Reflex on pumpkins, winter or summer squash per season. Please note the 18-month crop rotation restrictions for sweet corn. Do not use Reflex alone.

***Dual Magnum and Dual II Magnum Notes:** Even though pumpkins and winter squash are on both the Dual Magnum and Dual Magnum II label, it clearly states on both labels that it can only be applied “as an

inter-row or inter-hill application in pumpkin. Leave 1 foot of untreated area over the row, or 6 inches to each side of the planted hill and/or any emerged pumpkin foliage (inter-row or inter-hill means not directly over the planted seed or young pumpkin plants).“ This means you cannot broadcast apply either Dual Magnum product according to the regular label that comes on the jug. **In order to use the broadcast application, you must have the 24C Special Local Needs (SLN) label and the only formulation that has the broadcast application is Dual Magnum!** The broadcast method of Dual Magnum and Reflex is an indemnified label which means that you accept the risk of using this material and any injury or crop loss is not the responsibility of the company. In order to obtain the correct label, you will need to register with Syngenta at the beginning of every year and indicate that you are using this product on those specific crops. To register, go to www.farmassist.com and in the top header bar click “Crop Protection” and then select “Indemnified Labels”. Follow the directions from there. If you need assistance you can call the Syngenta Customer Resource Center at 866-796-4368. **Remember, if you are going to use Dual Magnum or Reflex, you must have a copy of the 24C label in your possession.**