Weed Management in Cucurbits

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Weed management in cucurbits is typically tailored for one of three production systems: (1) direct-seeded into bare ground, (2) transplanted into black (opaque) plastic mulch, or (3) no-till direct-seeded into crop stubble or killed cover crop. For system 1, one or more pre-emergence herbicides are applied after seeding, followed by cultivation, hand weeding, and application of postemergence broadleaf and/or grass herbicide if needed. For system 2 a pre-emergence herbicide may be applied under the mulch or just between the rows of mulch (depending on product and weediness of field), followed by use of nonselective herbicides in a shielded sprayer, and if needed, cultivation, hand weeding, and application of postemergence broadleaf and/or grass herbicides. System 3 may begin with broadcast application of a nonselective herbicide prior to seeding, followed by a pre-emergence material after seeding, and then a nonselective herbicide in a shielded sprayer, and/or postemergence broadleaf or grass herbicides. Some cover crops can be killed mechanically and heavy cover crop residue may provide good weed suppression for several weeks. Producers using organic methods may rely on the use of a stale seedbed, mulches, and mechanical and thermal control measures.

Herbicides for Cucurbits in Indiana¹

Herbicide							
Trade Name	Active Ingredient(s)	Muskmelon	Watermelon	Cucumber	Squash, Summer	Squash, Winter	Pumpkin
Pre-emergence			-		-		
Curbit	ethalfluralin	X, rmt, nop ²	X, rmt, nop	X, rmt, nop	X, rmt, nop	X, rmt, nop	X, rmt, nop
Strategy	ethalfluralin, clomazone	X, rmt, nop	X, rmt, nop	X, rmt, nop	X, rmt, nop	X, rmt, nop	X, rmt, nop
Command 3ME	clomazone	X	X	X	X	X	processing pumpkins only
Alanap	naptalam	X	X	X	_	_	-
Prefar	bensulide	X	X	X	X	X	X
Sandea	halosulfuron	X	X	X	X, rm	X	X
Sinbar	terbacil	_	X	-	-	_	-
Treflan, others	trifluralin	X, rm	X, rm	X, rm	X, rm	X, rm	X, rm
Postemergence, se	elective						
Aim	carfentrazone	X, bdt, rm	X, bdt, rm	X, bdt, rm	X, bdt, rm	X, bdt, rm	X, bdt, rm
Sandea	halosulfuron	X	X, rm	X	X, rm	X	X
Poast	sethoxydim	X	X	X	X	X	X
Select	clethodim	X	X	X	X	X	X
Postemergence, ne	on-selective	•		1	1		
Roundup, others	glyphosate	X, bd, rm	X, bd, rm	X, bd, rm	X, bd, rm	X, bd, rm	X, bd, rm
Gramoxone, others	paraquat	X, bd	X, bd	X, bd	X, bd	X, bd	X, bd
Scythe	pelargonic acid	X, bd, rm	X, bd, rm	X, bd, rm	X, bd, rm	X, bd, rm	X, bd, rm

Always read and follow herbicide label instructions. To the best of our knowledge this information is correct at the time of printing, but pesticide regulations change and this information may become outdated.

²X = labeled in Indiana, rmt = row middles only for transplants, nop= do not use under plastic, rm = row middles only, bd=burndown before seeding or transplanting, bdt=burndown before transplanting, – not labeled.