

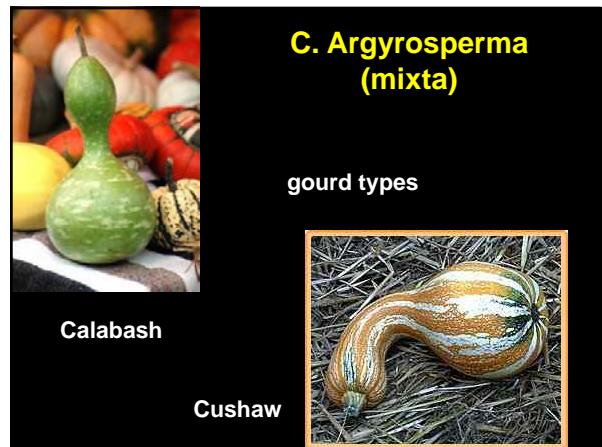
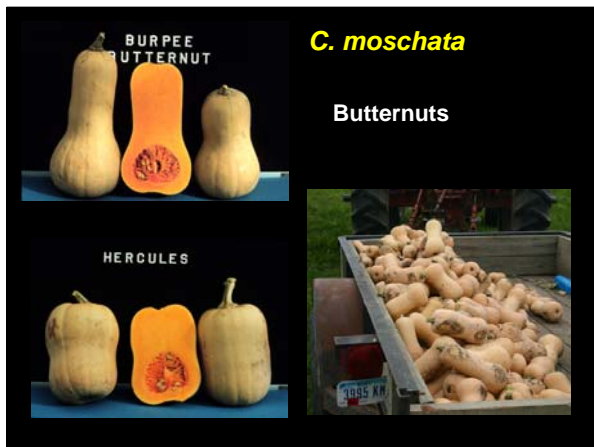
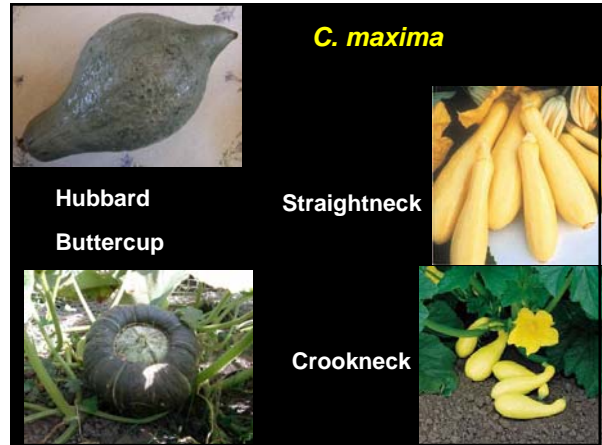
Weed Control for Pumpkin and Winter Squash

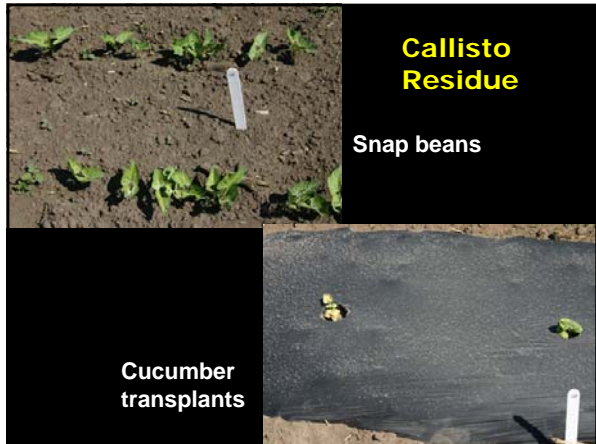
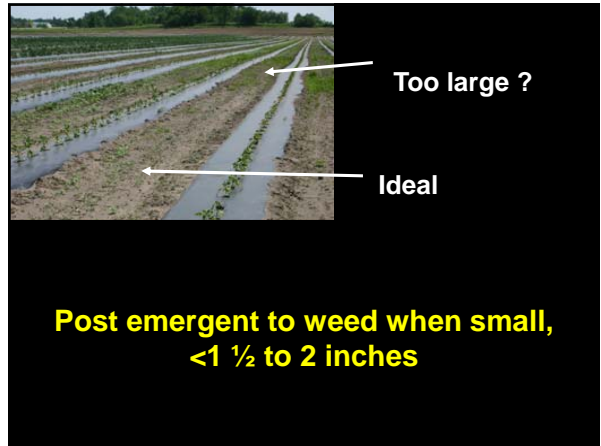
An Update - 2009


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Cucurbits or Vine Crops

<u>Crop</u>	<u>Types</u>	<u>Genus and Specie</u>
Pumpkin	Jack-O-lantern	<i>Cucurbita pepo</i>
	Gourds	
Squash	Acorn	
Pumpkin	Dickinson Field	<i>Cucurbita moschata</i>
Squash	Butternut	
Squash	Buttercup	<i>Cucurbita maxima</i>
	Atlantic field	
	NK 580	
Squash	Cushaw	<i>Cucurbita argyrosperma</i>
	Calabash	(<i>Cucurbita mixta</i>)








Same Problem ?

Powdery Mildew



Sencor to soil



**Roundup
Or
Gramoxone**

Burn down cereal rye or mow



Spring Oats

For:
Weed control
Clean fruit



**Wilson's
Iowa city**



**Oats seeded late –
Late April**

- Till out rows when oats about 2-3 inches
- kill oats with roundup at 20 inches or 7 -10 days prior to planting
- Strategy to row middles

Transplants + Plastic



**Rodents
Weeds
Moisture**



October 2nd Magic Lantern

No N, cuke beetle control, note few weeds

What's Cleared for Use ? Cucurbits

Product	Cukes	Musk	Water	Squash	Pumpkin
Alanap	Y	Y	Y	N	N
Command	Y,45	Y	Y	Y,45	N
Curbit	Y	Y	Y	Y	Y
Dacthal	Y	Y	Y	Y	N
Dual Magnum	N	N	N	N	Y,30
Prefar	Y	Y	Y	Y	Y
Treflan	Y,30	Y,30	Y,60	Y,30	Y,30
Sandea	Y,30	Y,57	Y,57	Y,30	Y,30
Strategy	Y,45	Y	Y	Y,45	Y

Post application to weeds by Roundup, Gramoxone, Aim, Poast, and Select Max cleared for all – usually prior to crop establishment

Weed Control for Pumpkins, Squash No Plastic Mulch

1. Apply **Strategy** @ 3-5 pts PRE. Then, at the 3-4 leaf stage, apply **Sandea** @ 0.5 oz. + **Poast** @ 1 pt. as a directed spray between rows. Do not use NIS.

OR

2. Apply **Curbit** @ 3 pts PRE instead of Strategy. Use the same post directed spray application

If plastic with transplants

1. Lay plastic mulch and transplant crop. Rapid canopy development will shade germinating weed seeds in the hole.
2. Row middle weeds controlled as above

Weed Control for Pumpkins, Squash

Notes:

* Pumpkin is more tolerant than squash to Sandea PRE and POST

* *C. maxima* squash (buttercup) are most sensitive

* Do not apply more than 1.0 oz. Sandea PRE or POST. Sandea can accumulate in the soil and become toxic.

* Use drop nozzles to keep Sandea off crop leaves

* The Command in Strategy may cause temporary bleaching of the true leaves, but the crop grows out of this condition.

Rye stubble – ground too heavy, too wet,
weed escapes - Sandea



Product Performance

	Grass	Brdlvf	Exceptions (control)
Command	Exc	Fair	Lambsquarters, purslane, ragweed, smartweed, veletleaf
Curbit	Exc	Fair	Lambsquarters, purslane, pigweed, smartweed
Dacthal	Exc	None	
Dual Mag	Exc	Fair	Nightshade, spurge, pigweed,
Prefar	Exc	None	Very short lived, 3 weeks
Sandea *	Poor	Exc	Yellow-nutsedge, morningglory
Treflan	Exc	Poor	Pigweed

* Has POST burndown effect on small weeds

Broadleaf Weed Control

<u>If the Problem is:</u>	<u>Consider Use of:</u>
Jimsonweed	Command
Lambsquarters	Command, Sandea
Nightshade	Dual
Pigweed	Curbit, Dual, Sandea
Purslane	Command, Curbit, Sandea
Ragweed	Command, Sandea
Smartweed	Command, Sandea
Veletleaf	Command, Sandea



Increase Command in Strategy to control jimsonweed – run risk of poor pumpkin color development

Herbicide demonstration at our southwest research farm to evaluate:

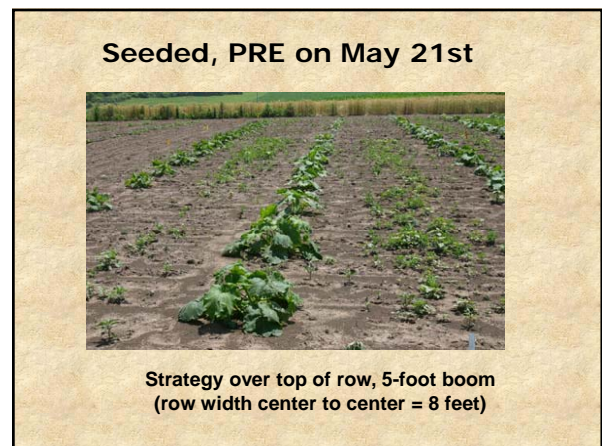
- Standard weed control
- Increase command in the mix
- Evaluate possible use of Reflex

Three species used:

- Pumpkin, *C. pepo*
- Buttercup, *C. maxima*
- Butternut, *C. moschata*

Five herbicide combinations
– Strategy as pre and various types as post treatments at initial vining.

Treatment	Application Timing
1.Strategy + Sandea + Poast Cost = \$72.86/ac	PRE as a 5-foot band over the seeded row POST to row middle after tilling POST to row after tilling
2.Strategy + Treflan 4E Cost = \$45.69/ac	PRE as a 5-foot band over the seeded row POST to row middle and rotovated in
3.Strategy + Dual Magnum Cost = \$51.49/ac	PRE as a 5-foot band over the seeded row POST to row middle after tilling
4.Strategy + Command 3ME Cost = \$51.30/ac	PRE both Strategy and Command tanked mixed and applied broadcast over entire plot area
5.Reflex* cost = \$29.25	PRE as a broadcast over entire plot area



Seeded, PRE on May 21st



Strategy + Command 3ME broadcast
(additional 1 ¼ pts)

**Seeded, PRE on May 21st
Reflex broadcast**



Pumpkin



Butternut



Butternut

Pumpkin Yield Results

Treatment (June 23 rd)	Mkt ton/ac	Fruit Size	Cull %
Sandea	32.3	13.3	33.1
Treflan	25.3	12.8	27.3
Dual Magnum	25.7	13.0	29.8
Command 3ME	35.2	13.5	20.2
Reflex only	22.3	13.1	31.0

First 4 trts = Strategy applied pre at time of seeding, May 21st

Butternut Yield Results

Treatment (June 23 rd)	Mkt ton/ac	Fruit Size	Cull %
Sandea	14.4	2.5	7.0
Treflan	14.7	3.4	6.6
Dual Magnum	13.0	3.4	5.5
Command 3ME	10.8	2.1	7.0
Reflex only	22.5	2.5	7.0

First 4 trts = Strategy applied pre at time of seeding, May 21st

Butternut Yield Results

Treatment (June 23 rd)	Mkt ton/ac	Fruit Size	Cull %
Sandea	14.3	3.2	2.1
Treflan	10.8	3.3	5.9
Dual Magnum	10.9	3.3	3.0
Command 3ME	12.5	4.0	11.6
Reflex only	4.8	3.2	15.8

First 4 trts = Strategy applied pre at time of seeding, May 21st

For additional information:

1. Refer to Midwest Vegetable Production Guide for Commercial Growers, FG 600
2. Contact your local county extension office resource guides

Enjoy your hard earned profits!

