



Weed Management in Snap Beans

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Snap beans

- ☞ Short-season crop, sensitive to weed competition
- ☞ Weeds have a major impact on yield and quality



Common weed seedlings in snap beans



Spiny amaranth



Smooth pigweed



Common lambsquarters



American black nightshade



Common ragweed



Common purslane

Interference level: Major to moderate yield or quality losses

Common weed seedlings in snap beans



Livid amaranth



Yellow nutsedge



Purple nutsedge



Ragweed parthenium



Yellow nutsedge



Purple nutsedge

Interference level: Major to moderate yield or quality losses

Common weed seedlings in snap beans



Fall panicum



Southern crabgrass



Goosegrass



Southern sandbur



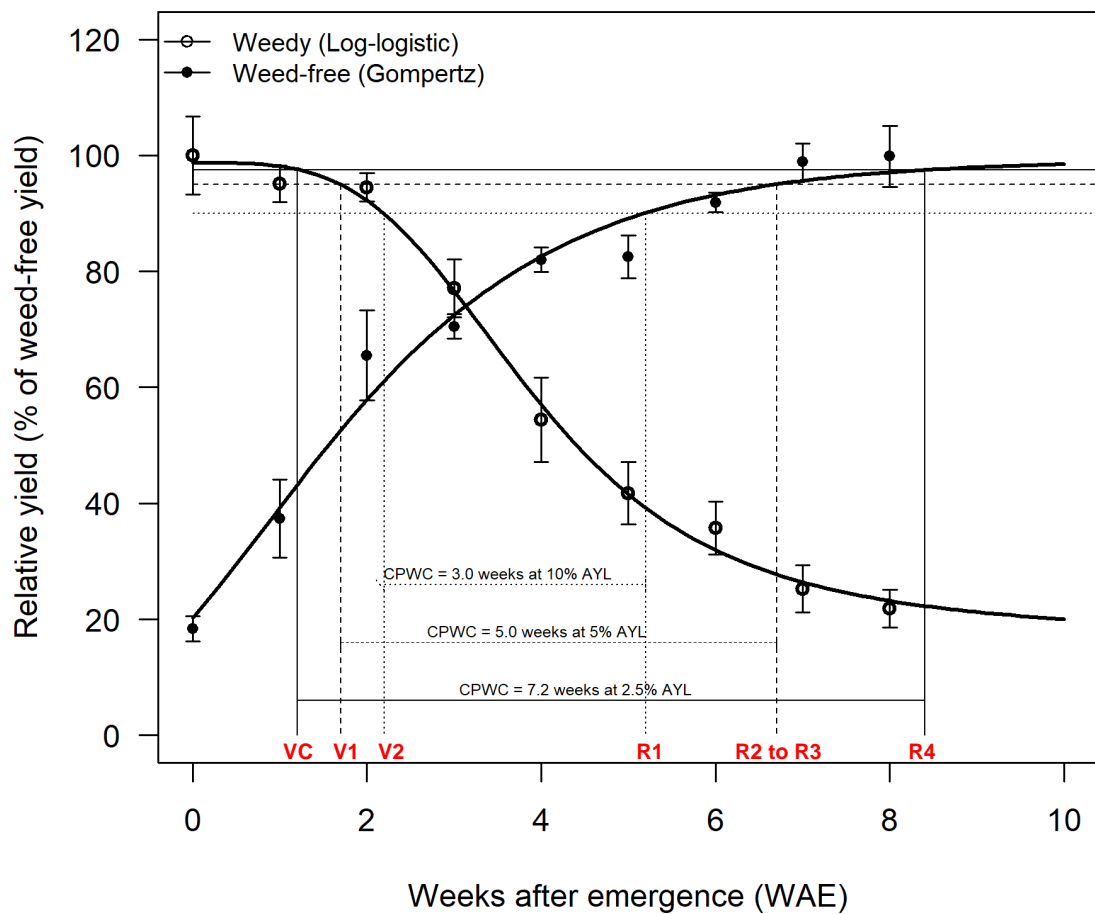
Crowfoot grass



Bermudagrass

Interference level: Major to moderate yield or quality losses

Snap bean: critical period of weed control on muck soil



Component of CPWC	WAE			Growth stage		
	2.5	5	10	2.5	5	10
Beginning of CPWC	1.2	1.7	2.2	VC	V1 to V2	V2
End of CPWC	8.4	6.7	5.2	R4	R2 to R3	R1

VC = cotyledon and unifoliate leaf
 V1 = first trifoliate leaf
 V2 = second trifoliate leaf
 R1 = early flower (one open flower)
 R2 = mid flower (50% open flowers)
 R3 = early pod set (one pod has reached maximum length)
 R4 = mid pod set (50% of pods have reached maximum length)

Planning a weed control program



Planning a weed control program

- 🌿 To develop an effective weed control strategy, consider
 - Weed species, cover crop, preplant tillage, herbicide incorporation, cultivar, row spacing, rotary hoeing, cultivation, herbicides
- 🌿 Accurate weed identification → important for the most effective and economical control program/treatment
- 🌿 Use an integrated approach (multiple tools)
 - Mechanical control – tillage
 - Cultural control – crop rotation, cover crop, fertilizer application
 - Chemical control – herbicides



Field after snap bean harvest



Fallow field before tillage



Fallow field after tillage → cover crop



Rotational crop → sugarcane

Weed response to herbicides in snap beans

Herbicide effectiveness P = Poor F = Fair G = Good E = Excellent		Common lambsquarters	Nightshade	Amaranthus species	Common ragweed	Common purslane	Crabgrass	Fall panicum	Goosegrass	Sandbur	Nutsedge
Herbicide											
Preemergence											
Dual Magnum	(1.0 – 1.33 pt)	P	F	G	P	P/F	E	G	E	F	G
Treflan	(1.0 – 1.5 pt)	G	N	G	N	F	E	E	E	G	N
Prowl H ₂ O	(1.0 – 1.5 pt)	G	P	F	P	F/G	E	E	E	G	N
Pursuit	(1.5 fl oz)	F	G	E	P	F/G	N	N	N	N	N
Reflex	(1.0 – 1.5 pt)	G	E	E	G	F	N	N	N	N	N
Postemergence											
Pursuit	(2 fl oz)	F	E	E	F-G	F/G	N	N	N	N	N
Basagran	(1.0 – 2.0 pt)	F	P	P	F	F	N	N	N	N	G
Reflex	(1.0 – 1.5 pt)	F	G	G	E	P/F	N	N	N	N	N
Sandea	(0.5 – 0.66 oz)	N	P	E	G	F	N	N	N	N	E
Assure II	(6 – 12 fl oz)	N	N	N	N	N	E	E	E	E	N
Poast	(1.0 – 2.5 pt)	N	N	N	N	N	E	E	E	E	N
Select Max	(9 – 32 fl oz)	N	N	N	N	N	E	E	E	E	N
Pursuit + Basagran		F	E	E	F	F	P	P	P	P	G
Reflex + Basagran		F/G	G	G	E	G	N	N	N	N	G

Ratings are for light to moderate weed densities, favorable conditions and weed growth stage as specified on product label. High weed densities, adverse conditions, or large weeds will reduce control.

For herbicide use

- 🌿 Scout field, identify weed species
- 🌿 Select appropriate herbicide(s) – efficacious
 - Mixtures and sequential treatments
 - Compatibility
 - Proper adjuvants
 - Cultivar tolerance
- 🌿 Application equipment
 - Proper calibration




Remember for chemical weed control

Do it right

- Proper herbicide(s)
- Proper herbicide placement
- Proper time of application
- Proper manner of application

READ THE HERBICIDE LABEL, IT'S THE LAW



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