Rutgers Cooperative Extension

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BELL PEPPER INTEGRATED WEED MANAGEMENT FIELD GUIDE

Season Prior to Planting Peppers

PROCEDURE	HOW TO SAMPLE	USE OF THIS INFORMATION	ADDITIONAL NOTES
Analysis of Soil	Using a county soil map, identify the different	With this information an integrated weed	Mechanical analysis generally only
Texture, Cation	soils in the field. Take a sample from each area	management program can be designed using	needs to be done once unless there is
Exchange	where soil types differ. Submit to lab for	cultural and/or chemical controls for each soil type	significant erosion or changes in
Capacity, Organic	analysis of texture by mechanical analysis & for	in a field. Soil type and pH differences within a	cropping patterns. CEC and pH should
Matter and pH	analysis of Cation Exchange Capacity (CEC),	field affect rate of application, carryover and other	be analyzed annually. Organic matter
	organic matter & pH.	interactions.	analysis should be done every 5 - 10
			years.

Weeds	Sampling	Frequency	Threshold	Notes
Annual & Biennial Weeds	Scout field in a zigzag pattern, sampling 10	once in late	Number of weeds per 10 ft.	Note whether any herbicide
	random locations. Either sample 1 square yard or	summer	of row or 1 square yard:	was used in the field during
	10 ft. of row at each location, depending on which		< 1 weed = very light	the season. If possible, leave
	scheme works best with the field. Identify the		1-4 weed = light	a check plot with no herbicide
	weeds, count number of each species. Note		4-10 weeds = medium	to learn what weeds are
	whether specific weeds are scattered throughout		10-100 weeds = heavy	potential problems.
(277, 1326)	the field or predominate in one area of the field.		> 100 weeds = very heavy	
Perennial Weeds: Canada	Scout for these weeds with the annual and	once in late	presence of perennial weeds	Review "Postharvest Perennial
thistle, common milkweed,	biennial weeds, but map the presence of these	summer		Weed Control" for
hemp dogbane, bindweed	weeds.			information on controlling
spp., johnsongrass, Bermuda				perennial weeds. (292)
grass, quackgrass, yellow				Use information about the
nutsedge, horsenettle				zero tolerance weeds for
Zero Tolerance Weeds(ZTW)				planning next year's weed
ground cherry, common				control strategies.
cocklebur, jimsonweed,				
Nightshade spp., common				
cocklebur, galinsoga,				
common purslane (277, 1326)				

Pre-plant Decisions

1. Use previous season's weed scouting results and maps to select control strategies. Consult County Extension Agent for weed control options. If choosing chemical control, match preplant incorporated and preemergence herbicide rates to soil type and percent organic matter in the field. (292)

Transplant to First Bloom

(three weeks after transplanting)

WEEDS	Sampling	Frequency	Threshold	Notes
Summer Annuals	Scout field in a zigzag pattern. Sample 1 square yard in 5 random locations and 10 ft. of row in another 5 random locations. Identify weed species and whether weeds are mostly in the row (those that would be left by cultivation) or between rows (those that would be removed by cultivation). Results of previous year's scouting helps with ID of small weeds at this scouting.	Once 15 - 20 days after transplanting.	# weeds/10 ft. row or 1 sq. yd. <0.25 weed = no control required 0.25 - 1 weed = some control may be required. > 1 weed = control required.	This is the most critical time for weed control decisions. Weeds between rows may be cultivated out. Weeds within the row may require an herbicide treatment or hand weeding, depending on species present.
Perennial or Zero Tolerance Weeds (ZTW) see pg. 1 for list	Note the presence of any of these weeds while scouting as outlined above. Map where these weeds are found and whether they appear within the row or between rows.	Once 15-20 days after transplanting	Presence of these weeds.	Galinsoga and common purslane reroot from cuttings.
All Weeds	Scout in the same manner as outlined above to evaluate how well the weed control strategies implemented after the three week scouting have worked.	1 week after the implementation of weed control measures	Use same thresholds.	Institute controls to bring weed populations under the threshold level.

First Bloom to Early Fruit Set

(five to six weeks after transplanting)

Weeds	Sampling	Frequency	Threshold	Notes
All Weeds	Sample 1 square yard or 10 ft. of row in	Once	# weeds/10 ft. row or 1 sq. yd.	Use information to assess weed
	each of 10 random locations. Identify	approximately 6	<0.25 weed = no control required	control program, determine if
	weeds, note whether weeds are within the	weeks after	0.25 - 1 weed = some control may be required	an additional cultivation will
	row or between rows. Map any perennial	transplanting.	> 1 weed = control required	clean out remaining weeds or
	weeds.		ZTW: presence = control required.	whether hand weeding or an
				herbicide treatment is required.

Bell Pepper Integrated Weed Management Field Guide, page 3

Pre-Harvest (approximately 9 weeks after transplanting)

Weeds	Sampling	Frequency	Threshold	Notes
Perennial or Zero Tolerance Weeds	While scouting for other pests,	Once prior to	Only weeds that would	Clean up perennial weeds after
	identify weeds present, note	harvest,	interfere with harvesting	crop is harvested with
	infestation level, where weeds are	approximately	operations or weeds that are	recommended strategies. Plant
	located (in row, between rows, on	9 weeks after	contaminants need to be	cover crops to discourage winter
	field edge, etc.) and whether weeds	planting.	controlled prior to harvest.	annuals.
	will interfere with harvest		Presence of perennials = fall	
	operations.		control required	(292)

^{*}Bolded numbers in parenthesis indicate sources of additional information found in the Mid-Atlantic IPM Database by this special reference number.

Scouting procedures, thresholds, and crop management recommendations have been compiled from a number of sources and may not be valid for all areas within the Mid-Atlantic Region. These field guides are meant to be used as guidelines. As such, they should be validated on a small acreage before relying on them. No guarantee of their validity, success, or failure to perform in the field is implied or expressed. Consult your local Cooperative Extension for additional Agent information or assistance.