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

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

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 each of 10 random locations. Identify weeds, note whether weeds are within the row or between rows. Map any perennial weeds.	Once approximately 6 weeks 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 ZTW: presence = control required.	Use information to assess weed control program, determine if an additional cultivation will clean out remaining weeds or whether hand weeding or an herbicide treatment is required.

Pre-Harvest (approximately 9 weeks after transplanting)

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