

Rutgers Cooperative Extension

Compiled by B. Majek, W. L. Kline, S. T. Kline

Prepared with support from northeast Region SARE Program Project ENE95-7

ASPARAGUS INTEGRATED WEED MANAGEMENT FIELD GUIDE

Season Prior to Planting Asparagus:

Procedure	How to Sample	Use of This Information	Additional Notes
Analysis of Soil Texture, Cation Exchange Capacity (CEC), 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 and for analysis of CEC, organic matter, and 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.

Scout once prior to harvest of current crop (season prior to planting asparagus) to determine weed potential for the asparagus crop.

Weeds	Sampling	Threshold	Notes
Zero Tolerance Weeds (ZTW): Canada Thistle, Common Milkweed, Hemp Dogbane, Bindweed spp., Johnsongrass, Bermuda Grass, Quackgrass, Yellow Nutsedge, Horsenettle, Ground Cherry (277, 1326)	Scout field in a zigzag pattern. Sample 10 random locations 1 square yard in size or 10 ft. of row, whichever pattern best suits existing conditions. Map the location of these weeds.	Presence	Review "Postharvest Perennial Weed Control" for information on controlling perennial weeds during the fall. (292)
Summer Annuals (277, 326)	Scout for these weeds while scouting for ZTW. Identify the weeds, count # of each species. Note whether specific weeds are scattered throughout the field or predominate in one area of the field.	<u># of weeds/10 ft. of row or 1 sq. yd.</u> < 1 weed = very light 1-4 weed = light 4-10 weeds = medium 10-100 weeds = heavy > 100 weeds = very heavy	Untreated check provides most reliable information for planning weed control strategies for the coming season. Populations rated as heavier than "light" will require control.

Establishment Year

Pre-planting 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.

Establishment Period

Crowns: first year. Trench filling stage usually takes two months.

Weeds	How to Sample	When	Threshold	
Zero Tolerance Weeds (ZTW) See above.	In a zigzag pattern, scout 1 sq. yd. or 10 ft. of row in 10 random locations. Identify species, count # of each weed species. Map location of ZTW. Determine whether weeds are predominantly within the row or between rows.	Once approximately 3 weeks. after trench filling is completed	# weeds/10 ft. row or 1 sq. yd.	Action
Summer Annuals (277, 326)			ZTW: Presence Summer annuals: < 0.25 weed 0.25 - 1 weed > 1 weed	Control required. None Control may be required. Control required
Whether weeds are within the row or between rows determines whether cultivation may be an effective control option.				

Established Asparagus

Spring

Weeds	How to Sample	When	Threshold	
Zero Tolerance Weeds (ZTW) See above.	In a zigzag pattern, scout 1 sq. yd. or 10 ft. of row in 10 random locations. Identify species, count # of each weed species. Map location of zero tolerance weeds.	Scout last ten days of April to first ten days of May depending on environment, choosing later date in colder years.	# weeds/10 ft. row or 1 sq. yd.	Action
Other Weeds (277, 326)			ZTW: Presence Other weeds: < 0.25 weed 0.25 - 1 weed > 1 weed	Control required None Control may be required Control required
Whether weeds are within the row or between rows determines whether cultivation may be an effective control option.				

Fern Growth

Weeds	How to Sample	When	Threshold	
Zero Tolerance Weeds (ZTW) See above	In a zigzag pattern, scout 1 sq. yd. or 10 ft. of row in 10 random locations. Identify species, count # of each weed species. Map location of zero tolerance weeds.	One month after initial scouting = last ten days of May or first week of June. Thereafter scout for weeds when scouting for other pests.	# weeds/10 ft. row or 1 sq. yd.	
Other Weeds (277, 326)			ZTW: Presence Other weeds: > 0.25 weed	

*Bolted numbers in parenthesis indicate sources of additional information found in the Mid-Atlantic 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 Agent for additional information or assistance.