

Rutgers Cooperative Extension

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PROCESSING PEA INTEGRATED WEED MANAGEMENT FIELD GUIDE

Year Prior to Planting Peas

If mechanical analysis for soil texture has never been done, sample now and submit to a laboratory for analysis.

Procedure	How to Sample	Use of the Information	Additional Notes
Analysis of Soil Texture, 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 Cation Exchange Capacity (CEC), organic matter (OM), 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 – 1- years.

Pre-harvest of Prior Year's Crop

Scout once before the crop is harvested to learn the potential weed problems for the pea crop the following year.

Weed	How to Sample	Threshold	Notes
Horsenettle, Ground Cherry, Yellow Nutsedge, Canada Thistle, Common Milkweed, Hemp Dogbane, Bindweed spp., Johnsongrass, Bermudagrass (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	Select control measures to eradicate these perennials for the next cropping season. See "Postharvest Perennial Weed Control" for treatment options. (292) Plant fall cover crop.
Summer Annuals, Black Nightshade, Hairy Nightshade, Common cocklebur, Jimsonweed (277, 1326)	Scout as outlined above for the presence of these weeds. Potential weed problems are best identified by a non treated weedy check. Identify the weeds, count # of each species. Note whether specific weeds are scattered throughout the field or predominate in one area of the field.	Number of weeds per 10 ft. of row or 1 sq. yd. < 1 weed = very light 1-4 weeds = light 4-10 weeds = medium 10-100 weeds = heavy > 100 weeds = very heavy	Untreated check provides the most reliable information for planning the weed control strategy for the coming season. Plant fall cover crop to control winter annuals.

Production Year

Pre-planting Decisions

1. From the information obtained from the prior year's scouting, select recommended control options for those weeds.
2. Use the map locating perennial weeds to determine if fall treatment eliminated those weeds.
3. Match preplant incorporated and preemergence herbicide rates to soil type and percent organic matter in each field.

Peas 2-4 Inches Tall

Weed	How to Sample	When	Threshold										
Zero Tolerance Weeds = Nightshades, Horsenettle, Yellow Nutsedge, Morning Glory, Jimsonweed, Common Cocklebur, Canada Thistle, Common Milkweed, Hemp Dogbane, Bindweed spp., Johnsongrass, Bermudagrass, Quackgrass Winter Annuals Summer Annuals (277, 1326)	In a zigzag pattern, scout 1 sq. yd in 5 random locations and 10 ft. of row in another 5 random locations. Identify species, count # of each weed species. Map location of zero tolerance weeds. Determine whether weeds are predominantly within the row or between rows.	Scout once when peas are 2 to 4 inches tall.	<table border="0"> <tr> <td><u># weeds/10 ft. row or a sq. yd.</u></td> <td><u>Action</u></td> </tr> <tr> <td>Zero Tolerance Weeds</td> <td>Presence Control Required</td> </tr> <tr> <td>Summer Annuals</td> <td><0.25 weed None</td> </tr> <tr> <td>“ “</td> <td>0.25 – 1 weed Control may be required</td> </tr> <tr> <td>“ “</td> <td>> 1 weed Control required</td> </tr> </table> <p>Canada Thistle: The flower bud presents a contamination problem in the processed product. Nightshades: The berry is poisonous and presents a contamination problem in the processed product. Neither can be separated from peas by mechanical separation.</p>	<u># weeds/10 ft. row or a sq. yd.</u>	<u>Action</u>	Zero Tolerance Weeds	Presence Control Required	Summer Annuals	<0.25 weed None	“ “	0.25 – 1 weed Control may be required	“ “	> 1 weed Control required
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Weeds listed above	Scout in same manner	Scout 2 weeks after controls have been instituted.	This scouting is to determine how effectively the treatment controlled the weeds. Further treatment dependent upon results. See thresholds above.										

For Early Planted Peas

Weed	How to Sample	When	Threshold										
Zero Tolerance Weeds = Nightshades, Horsenettle, Yellow Nutsedge, Morning Glory, Jimsonweed, Common Cocklebur, Canada Thistle, Common Milkweed, Hemp Dogbane, Bindweed spp., Johnsongrass, Bermudagrass, Quackgrass Winter Annuals Summer Annuals (277, 1326)	In a zigzag pattern, scout 1 sq. yd. in 5 random locations and 10 ft. of row in another 5 random locations. Identify species, count # of each weed species. Map location of zero tolerance weeds. Determine whether weeds are predominantly within the row or between rows.	Approximately 4 weeks after planting, a second scouting can be carried out on early planted peas <u>if</u> the recheck scouting above has not been carried out.	<table border="0"> <tr> <td><u># weeds/10 ft. row or a sq. yd.</u></td> <td><u>Action</u></td> </tr> <tr> <td>Zero Tolerance Weeds</td> <td>Presence Control Required</td> </tr> <tr> <td>Summer Annuals</td> <td><0.25 weed None</td> </tr> <tr> <td>“ “</td> <td>0.25 – 1 weed Control may be required</td> </tr> <tr> <td>“ “</td> <td>> 1 weed Control required</td> </tr> </table> <p>Canada Thistle: The flower bud presents a contamination problem in the processed product. Nightshades: The berry is poisonous and presents a contamination problem in the processed product. Neither can be separated from peas by mechanical separation.</p>	<u># weeds/10 ft. row or a sq. yd.</u>	<u>Action</u>	Zero Tolerance Weeds	Presence Control Required	Summer Annuals	<0.25 weed None	“ “	0.25 – 1 weed Control may be required	“ “	> 1 weed Control required
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*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. They are meant to be used as guidelines. As such, they should be validated on small acreages 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.