



Rotations for Pest Management

Conservation Solutions for your Pennsylvania Farm

Do you have problems with:

- Low yields due to weeds, insects, or plant diseases
- Low crop quality due to weeds, insects, or disease
- High pesticide costs
- Seasonal labor shortages

A crop rotation designed to grow different crops can reduce weeds, insect, and diseases pressures.



Slug feeding on corn plants.

Benefits of crop rotations for pest management:

- Improve crop yields
- Reduce or eliminate the need for pesticides
- Provide higher prices for better quality crops
- Provide higher farm income over the length of the rotation
- Provide better distribution of labor during the crop season by using different crops, planting dates, and harvest periods
- Improve soil and water quality



A rotation with multiple crops is one of the best methods to reduce weeds, insects and diseases on your crops.

Costs?

- Time for pest scout training
- (4-8 hours/year)
- Pest and crop scouting time
- (1-3 hours/week)
- Crops with lower market value may be used in some years of the rotation; however, the income may be higher over the life of the rotation.
- Generally no capital outlay required.

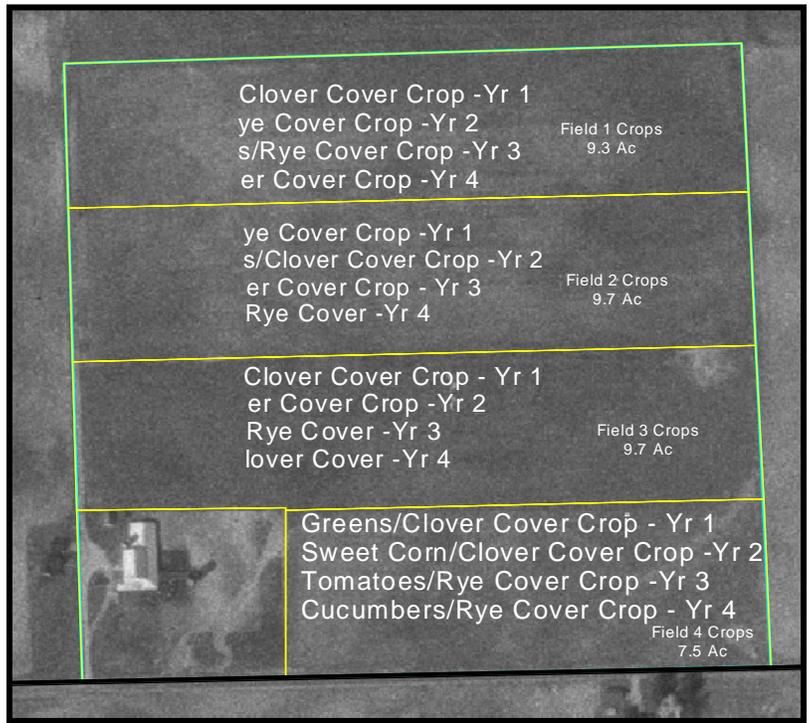


Scouting for weeds, insects, and diseases is critical for management.

Rotations for Pest Management

Crop Rotation Planning Considerations for Pest Management:

- Identify the specific weed, insect and disease problems for each crop and field.
- Choose crops with different planting and harvest dates to help break pest cycles.
- Evaluate and modify the sequence of the present crops to address the pest problems. For example, plant potatoes after sweet corn and sweet corn after cabbage to reduce weed, insect, and diseases.
- If needed, choose additional crops and a rotation order to address the pest problems and market needs.
- Select resistant and tolerant crop varieties. For example, some varieties of muskmelon and cucumbers are resistant to powdery mildew.
- Determine nutrient (fertilizer, manure, or compost) needs.
- Use soil test recommendations to adjust pH and nutrient levels for optimum crop yields and quality.



Crop Rotation Maintenance:

- Annually, evaluate cropping sequence for income needs and pest pressures.
- Crop and pest scouting.
- Periodic soil testing.
- Calibrate sprayers, planters, and fertilizer applicators to:
 - Apply recommended rates.
 - Establish uniform distributions.
 - Provide uniform seeding depths.
- Clean field equipment when moving from one field to another. Wash with water or disinfectant and physically remove the soil/plant residue from the equipment.

Other Benefits

- Improved crop emergence, growth and health.
- Reduced soil erosion.
- Reduced nutrient and pesticide contamination of streams and well water.
- Reduced harmful effects of pesticides to wildlife and beneficial insects.
- Reduced pesticide risk to humans.
- Reduced financial risk by using multiple crops.
- Improved air quality.

Rotations for Pest Management



Grass filter strips and field borders can serve as habitat for beneficial insects.



Different crops allow for different planting and harvest periods to break pest cycles and distribute labor.



Tillage performed during different periods of the year helps to control weeds.



Scouting for weeds, insects, and crop disease is a critical part of pest management.



Timely hay harvests can reduce insect damage and reduce the need for applying insecticides.



Rotations for pest management provide healthy and productive crops with less input.

CONSERVATION SOLUTIONS FOR YOUR PENNSYLVANIA FARM

Technical Help Is Available

Your local Natural Resources Conservation Service (NRCS) office has experienced conservationists that can assist you plan and implement a rotation for pest management. They can also help you develop a Conservation Plan to solve other problems you have identified on your farm.

There is no charge for our assistance. Simply call your local office at the number listed below to set up an appointment and we will come to your farm.

You may also be eligible to receive financial assistance, through a state or federal program. Your NRCS office will explain any programs that are available so you can make the best decision for your operation. All NRCS programs and services are voluntary.



Helping People Help the Land

NRCS FIELD OFFICES:

Adams: 717-334-2317 ext 3
Allegheny: 717-482-4800 ext 3
Armstrong: 724-545-1022 ext 3
Beaver: 724-482-4800 ext 3
Bedford: 814-623-7900 ext 3
Berks: 610-372-4655 ext 3
Blair: 814-695-6291 ext 3
Bradford: 570-265-6969 ext 3
Bucks: 215-453-9527 ext 3
Butler: 724-482-4800 ext 3
Cambria: 814-472-5502 ext 3
Cameron: 814-375-2125 ext 3
Carbon: 610-625-8392 ext 3
Centre: 570-726-3196 ext 3
Chester: 610-696-0398 ext 3
Clarion: 814-226-8160 ext 3
Clearfield: 814-375-2125 ext 3
Clinton: 570-726-3196 ext 3
Columbia: 570-784-1062 ext 3
Crawford: 814-724-1852 ext 3
Cumberland: 717-249-1037 ext 3

Dauphin: 717-921-2380 ext 3
Delaware: 610-696-0398 ext 3
Elk: 814-375-2125 ext 3
Erie: 814-796-6760 ext 3
Fayette: 724-437-7971 ext 3
Forest: 814-226-8160 ext 3
Franklin: 717-264-8074 ext 3
Fulton: 717-485-3812 ext 3
Greene: 724-627-5821
Huntingdon: 814-627-1626 ext 3
Indiana: 727-463-8547 ext 3
Jefferson: 814-375-2125 ext 3
Juniata: 717-436-8953 ext 3
Lackawanna: 570-282-8732 ext 3
Lancaster: 717-299-5361 ext 3
Lawrence: 724-652-5811
Lebanon: 717-272-3908 ext 3
Lehigh: 610-625-8392 ext 3
Luzerne: 570-799-0645 ext 3
Lycoming: 570-433-3902 ext 3
McKean: 814-274-8166 ext 3
Mercer: 724-662-3740 ext 3
Mifflin: 717-248-9541 ext 3

Monroe: 610-625-8392 ext 3
Montgomery: 610-372-4655 ext 3
Northampton: 610-625-8392 ext 3
Northumberland: 570-286-7114 ext 3
Perry: 717-582-4144 ext 3
Pike: 570-282-8732 ext 3
Potter: 814-274-8166 ext 3
Schuylkill: 570-622-1312 ext 3
Snyder: 570-837-0007 ext 3
Somerset: 814-445-6876 ext 3
Sullivan: 570-836-2490 ext 3
Susquehanna: 570-278-1011 ext 3
Tioga: 570-724-1726 ext 3
Union: 570-523-3280
Warren: 814-563-3125
Washington: 724-222-3060 ext 3
Wayne: 570-282-8732 ext 3
Westmoreland: 724-834-3970 ext 3
Wyoming: 570-836-2490 ext 3
Venago: 814-437-2473 ext 3
York: 717-755-2966 ext 3