

# Alcorn State University Extension Program

## CROP ROTATION

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Crop rotation is the growing of crops from different plant families in succession. In a vegetable crop rotation, vegetables are often arranged according to families, so that individual vegetables from the same family do not follow each other in the rotation. The reason for this practice is that vegetables in the same family grouping are likely to be susceptible to the same diseases and organisms. When plants from the same family are grown in an area year after year, disease-causing organisms can build up in that area, increasing the likelihood of disease problems.

### Tips

- Follow a legume crop by a crop that demands high amounts of nitrogen.
- Grow less nitrogen demanding crops (small grains) the second year after a legume crop.
- Do not grow the same crop in consecutive years in order to decrease insects, weeds, diseases, and nematodes.
- Follow a crop with one that is not closely related species because of insects, diseases, weeds, and nematodes.
- Where applicable, use grass or legume sod in rotations or as permanent stands on sloping highly erosive soils.

Deeply rooted crops such as alfalfa, safflower, or sunflower penetrate to depths of 5 to 6 feet and utilize nutrients and water, and leave channels from decayed roots that improve infiltration.

To maintain organic matter, rotate high residue crops with low residue crops or use cover crops.

### Advantages

Control pests by disturbing their life cycles. This is because the crops keep changing and the pest cannot infect, feed, and live on all the crops in the rotation.

Control soil-borne diseases and nematodes.

Maintain soil fertility — the addition of a legume to the rotation will increase the nitrogen level of the soil and improve soil structure.

Prevents soil erosion because plants from different families have different rooting systems and growth habits.

Helps control weeds.

Reduces reliance on synthetic chemicals.

Enables the various crops to make better use of soil nutrients because of their different rooting systems.

Improve soil health and produce high quality and yield from year to year

May provide earnings and food all year round.

Provides farmers the satisfaction of growing different crops all year round.

For more information, please contact Dr. Franklin Chukwuma Coordinator of Off-Campus Centers, 601-877-2312 or [franklinc@alcorn.edu](mailto:franklinc@alcorn.edu)



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