



Converting to Chemical-Free Farming


One in a Series of “How-to’s”


Organic farming is a complex undertaking that relies on crop rotations and other ecological management of insects, weeds and diseases rather than pesticides and chemical fertilizers. It has been shown to produce yields comparable to conventional farming, conserve water and maintains soil quality while using less energy. The conversion to organic farming should be a gradual process. To ensure success:

Preparation


 **Conservation-** Commit to building and maintaining soil resources. This can be done by utilizing green and animal manures, minimum tillage, and terracing to control erosion.


 **Soil Amendments-** Restore nutrients and adjust pH prior to converting to non-chemical farming. Chemical intensive farming robs the soil of nutrients and disrupts natural balances.


 **Diversification and Rotation-** Maintain many different crops, such as corn or soybeans, small grains, legumes, sorghum, and various specialty crops such as vegetables or fruits. Diversification makes good biological as well as economic sense.

 **Livestock-** Develop a livestock component, while not indispensable, provides extra nitrogen, compensates for the reduced profitability of the rotation crops, and maximizes financial stability over varying growing and economic situations by providing direct income, selling vs. feeding options, and by giving salvage value to crops in case of drought or market changes.

Conversion

 **Insecticide Reduction-** Increase crop diversity and the use of rotation, effecting a reduction in insect problems. Experiment with ways to reduce insecticide use, especially through integrated pest management (IPM). Most non-chemical farmers agree that this is the easiest step in the conversion.

 **Herbicide Reduction-** Experiment with crop rotations, various cultivation methods, different equipment, etc. Fields with perennial weed problems should be seeded to alfalfa. Seek out help from the organic farming literature and community for solutions to special problems.

 **Fertilizer Reduction-** Plan acreage for the proper balance among heavy nitrogen consumers (such as corn), legumes, and crops to support livestock, set yield goals, and decide the extent to which off-farm sources of fertility will be utilized. Market opportunities for organic commodities must also be fully explored to allow for economic planning.