



**OLD & NEW WAYS  
OF FARMING**



## **CONTOUR PLOWING:**

Lines on a contour map connect land surfaces of equal elevation, or height above sea level.

Contour plowing follows the same path. This often results in an irregular but concentric furrow pattern. The furrows go across the hill, not down the slope. This helps prevent soil erosion and increases water retention for crops. Traditional plowing often paralleled a farmer's fence line, no matter what the slope of the land.

## **FIELD TRIAL:**

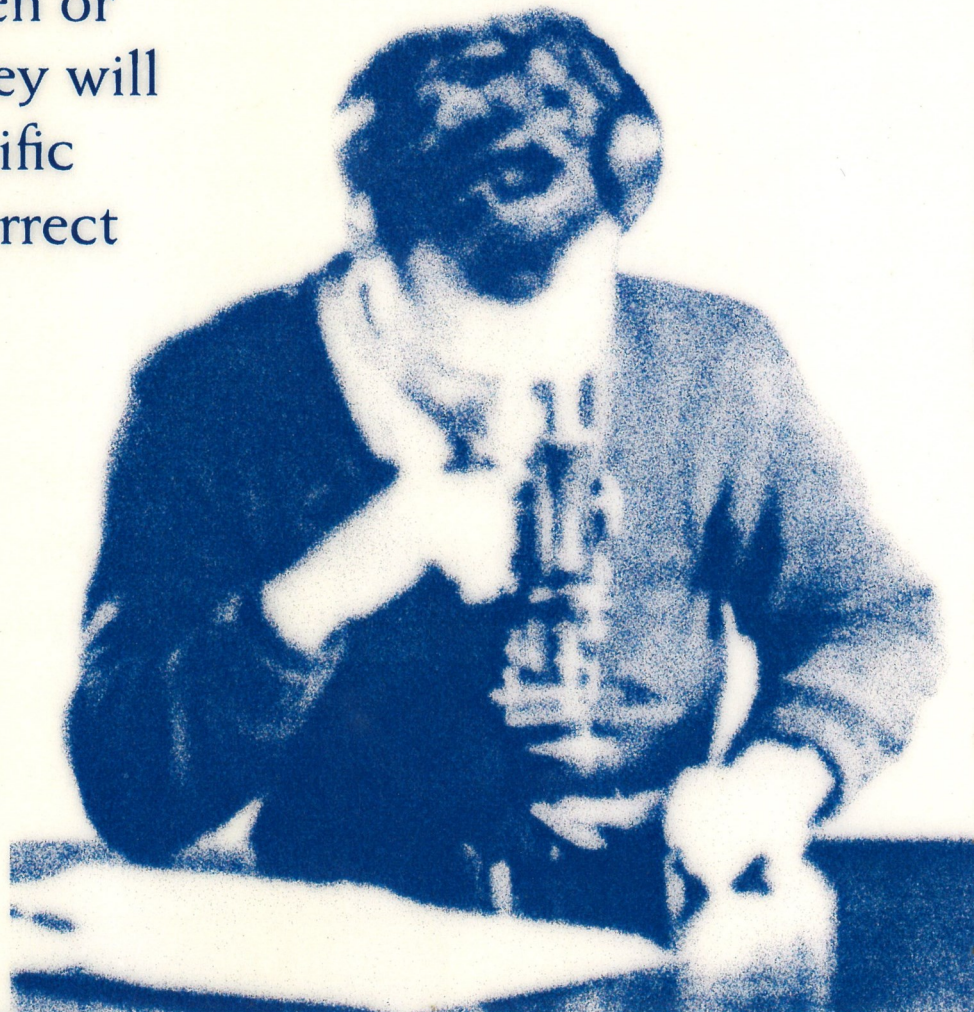
This practice attempts to demonstrate the results of applying a specific technique to improve farming. The farmer conducts the test on the farm, not in a laboratory. He applies the technique to only one part of a field, leaving the other part as a control. For an herbicide test, for example, he sprays only one part of a field to control weeds. At the end of the season the farmer can easily measure and compare the crop yield from both sections of the field.

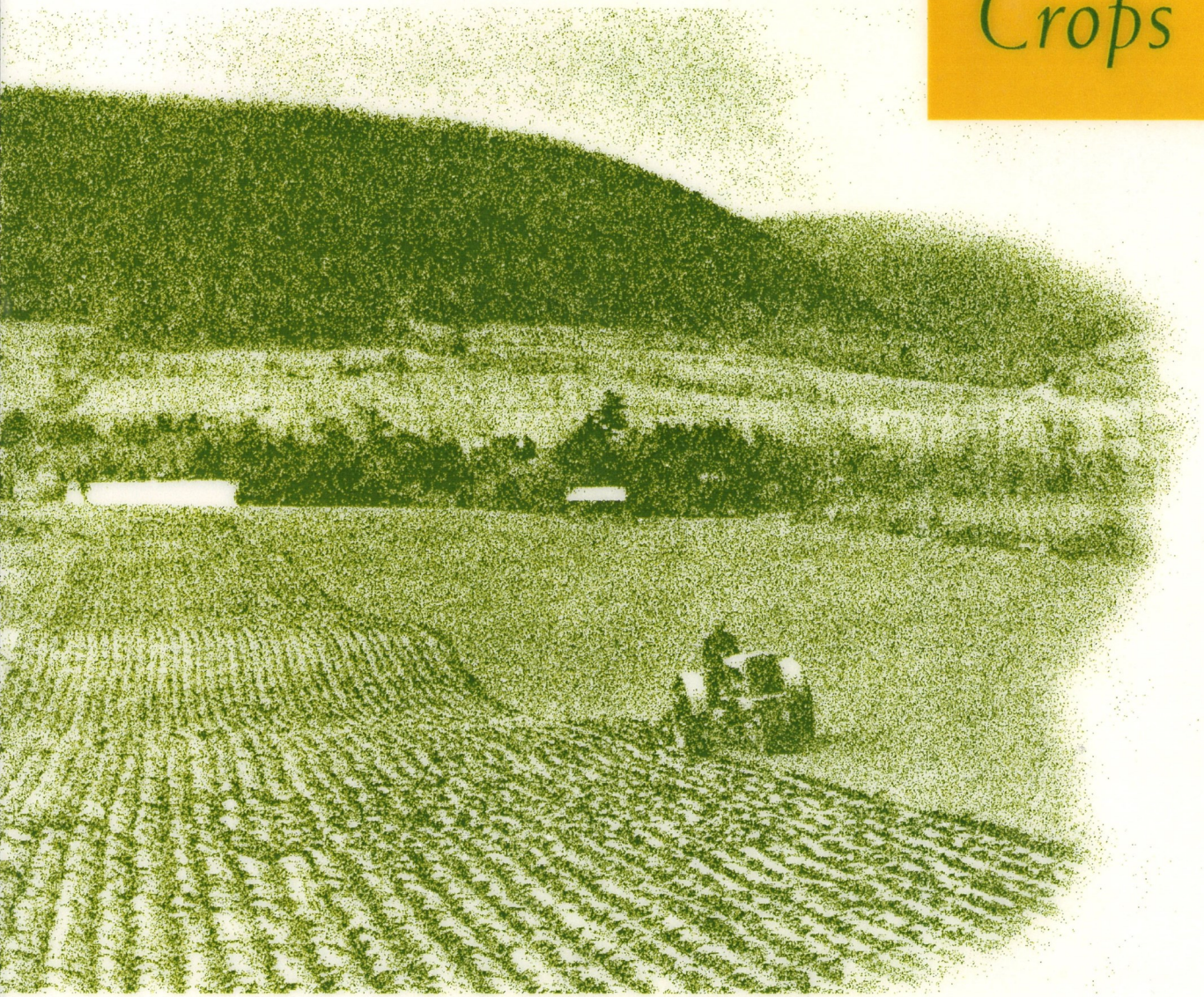
## **HYBRID SEED:**

This seed is the offspring of genetically crossing two different, inbred varieties of plants, such as corn. Scientists pick beneficial traits of the plant that they wish to emphasize, such as a high crop yield or resistance to disease. Successful hybridization yields vigorous plants and larger crops. Laboratories or seed nurseries produce hybrid seed under highly controlled conditions. Farmers cannot raise their own hybrid seed; they have to purchase it.

## **SOIL TESTING:**

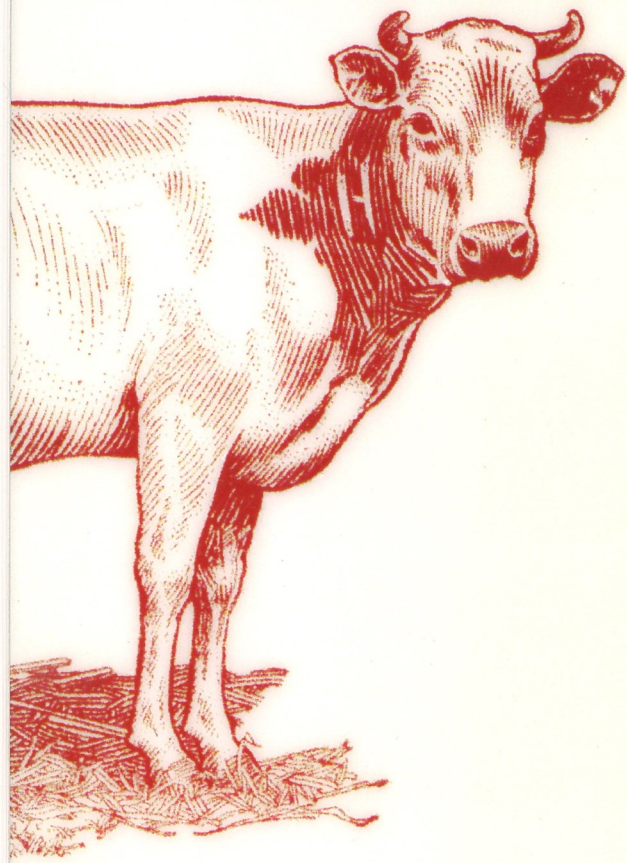
The farmer takes soil samples from different parts of each field. He sends them to a government agency or to a commercial company for analysis. The test results describe the nature of the soil in each of his fields and what nutrients may be lacking. Different crops require different soil conditions. County Extension Service agents can recommend specific additives to spread on each field. If the soil is too acidic, they will recommend adding lime to make the soil more neutral. If it is deficient in nitrogen or other nutrients, they will recommend a specific fertilizer mix to correct the problem.





## **STRIP-CROPPING:**

The farmer plants alternating strips of different crops in the same field. Some plants anchor the soil better than others do. This helps to prevent soil erosion. Insect pests eat some crops and not others. Alternating the crops slows down the spread of insect pests.



## **ARTIFICIAL INSEMINATION:**

Traditionally if farmers wanted their dairy herds to reproduce, they had to keep a bull or transport the cows to a nearby farm that owned one. With everyone using the same bulls, the gene pool of breeding stock in a local area became inbred, resulting in less productive animals. Artificial insemination is the practice of artificially inserting previously frozen sperm from a bull into the uterus of a cow to improve the next generation of livestock. The technique offers the farmer a wide choice of sperm to purchase from animals anywhere in the country. The same practice applies to the breeding of many types of livestock.

## **SELECTIVE BREEDING:**

In this case, the farmer chooses to breed only selected animals in the herd. The information needed to make such decisions comes from close observation of each animal. With dairy cows, for example, the farmer will measure the volume of milk each cow produces, and the level of butterfat in her milk. He will then breed only the high producers to improve the next generation of the herd. The Dairy Herd Improvement Association in Somerset County helped farmers with record keeping so they could analyze the productivity of each cow.

