

Agriculture Page Article  
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*Weathering a Dry Spell*

After two exceedingly wet years and a fairly rainy start this summer, the 2005 growing season has ended hot and dry. While there's nothing we can do to change the weather - at least in the short run - there are several steps you can take to conserve moisture and make your farm or garden a bit more drought-proof.

The first of these is to build up your soil's organic matter. This is a multi year process, although you can see significant increases in organic matter in 2-3 years, if you're diligent. Begin now by applying a thick layer of shredded leaves, grass clippings or old hay to the surface of your soil. On another section of your land, plant a winter cover crop of rye and hairy vetch. In late April to early May till these into the top few inches of soil. Newly incorporated plant material, particularly rye, can inhibit germination and the growth of young plants, so be sure to allow at least two to three weeks between tilling and planting.

The second step in conserving moisture is to avoid bare ground. Exposed soil loses water more quickly, and if it's a clay-based soil, also will become hard or "crusty" on the surface. To preclude this, keep a mulch on the ground wherever you are growing crops, and plant spring (oats, barley) or summer (buckwheat, soybeans, millet) cover crops on unused ground. Both organic and plastic mulches reduce surface evaporation and keep moisture in the plant root zone longer. Plastic mulch is more convenient, lasts longer and, for commercial growers, is less expensive than straw. It requires you to irrigate with drip irrigation, regardless of rainfall. For the home gardener or small commercial grower, straw, grass clippings or leaf humus can be economically applied. Compared to plastic, these mulches have a few advantages: They increase soil organic matter as they decompose, they keep the soil cooler in the hottest days of summer, and they don't have to be removed at the end of the season (If plastic mulch is left on the soil, it will degrade, leaving behind petroleum residues).

Lastly, planting in double rows or beds, works well for most smaller crops, including peppers, cabbage, broccoli, lettuce, mustard greens, beets and many more. By planting two or more rows side by side, you decrease the amount of mulch needed, and allow irrigation lines, either drip tape or a soaker hose, to be "shared" by two rows of crops. With proper spacing, the

plants will not crowd each other, but will form a canopy over the soil, reducing water loss and competition from weeds.

In season and off season, these steps will help improve plant growth and conserve soil moisture, something likely to become increasingly important in the coming years.

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