

Monday, April 14, 2003

SOIL PENETRATION AIDS FROM NAP

Now is the time to think about water and nutrient permeability problems. Water permeability problems produce puddling and runoff in the field, which results in either dry or drowned plants. Also, since we add much of our fertilizer via the irrigation water, nutrient distribution is non-uniform. **THINK ABOUT IT!!** If your fertilizer is in a puddle or running off the field, it is not getting to the roots. This results in non-uniform growth and yield. To help solve these problems NAP has developed five products to address most permeability problems.

These products work best when added to the first irrigation water of the season. In this way the problems are eliminated before they begin. However, application anytime during the season will help alleviate the problem. The five products are listed below with suggestions as to where they are most applicable.

AGRI-PREP CS

AGRI-PREP CS is a soap type wetting agent. It reduces the surface tension of the water so that it moves readily through tiny pores in the soil. It is best used where there is standing water in the field and the plants are in danger of drowning. This product costs the least of these four products since the label rate is from 4 to 8 ounces per acre.

WICK-EC

WICK-EC addresses the most common penetration problems found in the dry parts of the PNW that are irrigated with river water. It contains calcium and calcium activators that modify the soil crust so that water penetration is enhanced.

Recommended application rates are 3 to 5 gallons per acre in the first irrigation. Additional applications may be necessary later in the season.

POLYCAL

This product contains both polyacrylamides (PAM) and 6.5% activated calcium from WICK-EC. It is especially effective on slopes. It helps bind fine soil particles so erosion is reduced. Also, it enhances water penetration.

Application rates are 2 to 5 gallons per acre.

SOIL-MAX

SOIL-MAX contains soil conditioners, a water penetrant, and biostimulants (cytokinins and humic acids). It is designed for the long-term improvement of the soil structure. It contains penetrants to help get the soil open quickly. Then the soil conditioners and biostimulants deal with the underlying problems that cause the permeability problem. This product can also increase feeder root mass.

Recommended application rates are from 1 to 3 gallons per acre per year. Usually NAP has found that one gallon per acre per season is adequate to solve soil penetration problems.

ORGANIC SOIL PENETRANT

Contains calcium and organic penetration aids to promote uniform water and nutrient infiltration. One gallon per acre is adequate to solve soil penetration problems. It is approved in Washington for all organic crops.

If you have any additional question, call your NAP field representative.