## IMPORTANT TIPS ON FOLIAR FEEDING

Michigan State University proved the value of foliar feeding many years ago. A project partially funded by the (then) Atomic Energy Commission used radioactive tagged nutrients to prove that a plant can feed through the leaves. In fact, the tests proved that it was 8-10 times more effective to foliar feed a plant as far as the amount of nutrients required and the speed with which those nutrients were utilized. In our opinion, foliar feeding is by far the best approach to use to insure maximum growth, yields, and quality by overcoming limitations of the soil and its ability to transfer nutrients into the plant.

The best time to foliar feed is between 7:00AM and 10:00AM or after 5:00PM. These are the period when the stomata (small pores in the leaf bottoms) are open. However, if the temperature at 7AM is 80 degrees or above, the spray will have little effect.

The optimum temperature is about 72 degrees. If the weather is extremely hot and dry, you may have to spray between 2-4 AM.

Most foliar sprays should contain small amounts of Nitrogen to act as an electrolyte to carry nutrients into the plant. A small amount of Phosphorous is also recommended for internal circulation.

The pH of a foliar spray should be between 6.2 and 7.0 whenever possible. As a rule, sweeter (alkaline) sprays are needed for young plant growth, and sour (acid) sprays are needed for the second, or "production" stage of development. Unless you use **CROPMASTER® SERIES** specifically formulated sprays, the easiest way to adjust pH in a spray is to add baking soda to make it sweeter, (Alkaline) or vinegar to make it sour (Acid).

If the feeding was effective, visible results will usually be seen in 48 hours. Results can be detected with a Refractometer in as little as 4 hours. If spray was applied improperly and simply fell to the ground, (Feeder roots will pick them up) results may be delayed two weeks.

Always mix the spray thoroughly and apply in as fine a mist as possible. Ideally, the speed through the field should be such that a swirling action is set up in the mist so as to moisten the <u>underside</u> of the leaves where the stomata are. The same rule applies when feeding by aircraft. When feeding through a center pivot, drop lines should be used with nozzles turned up to insure wetting the underside of the leaves.

The "law of little bits" always applies in foliar feeding. It is better to spray smaller amounts of material often rather than try to drown a plant in one large dose. Take care to avoid leaf burning when spraying in direct sunlight. The use of a quality wetting agent, such as **EXCEL<sup>TM</sup>** will prevent formation of droplets on the leaves that act as prisms for the sunlight to focus on and burn. It will also maximize the efficiency of the spray, insuring that the maximum amount will stick to the leaves and be absorbed.