

**Helps
Correct & prevent
Frizzle-Top in Palms!**

Cut on line. Resealable package

**SOUTHERN
AG®**

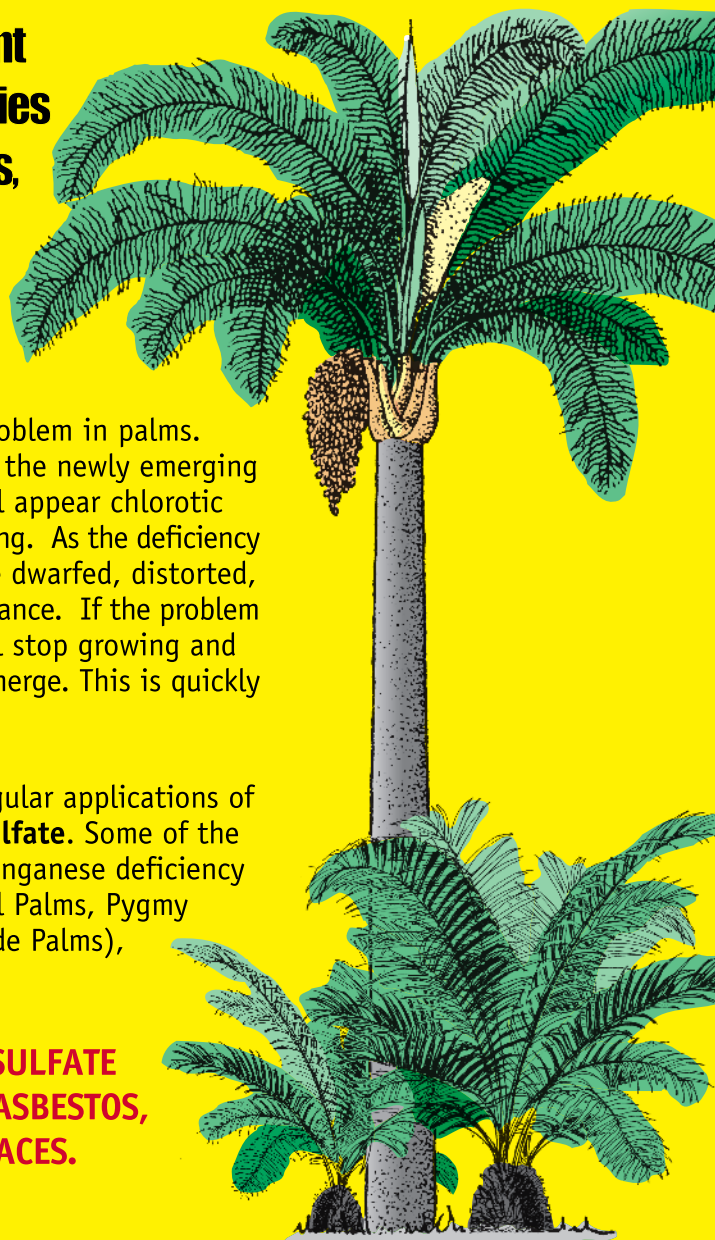
MANGANESE SULFATE

**Helps Correct & Prevent
Manganese Deficiencies
in Palms, Trees, Shrubs,
Plants & Landscapes.**

Manganese deficiency or "frizzle-top" is a common problem in palms. The symptoms appear first on the newly emerging fronds(leaves). The fronds will appear chlorotic (yellow), small, and weak looking. As the deficiency progresses, fronds will emerge dwarfed, distorted, withered or scorched in appearance. If the problem is not corrected, the palm will stop growing and only small brown stubs will emerge. This is quickly followed by death of the tree.

All palms can benefit from regular applications of **SOUTHERN AG Manganese Sulfate**. Some of the most susceptible plants to manganese deficiency are Queen Palms, Sagos, Royal Palms, Pygmy Date Palms, Paurotic (Everglade Palms), and Coconut Palms.

**CAUTION: MANGANESE SULFATE
WILL STAIN MASONRY, ASBESTOS,
AND MANY OTHER SURFACES.**



**Net Weight
5 lb. (2.27 kg)**

Cut on line. Resealable package



MANGANESE SULFATE

DIRECTIONS FOR USE

APPLICATION RATES (Spread material under canopy of tree.)
Small Palms: use 1/2 to 1 pound per tree
Medium Palms: use 1 to 3 pounds per tree
Large Palms: use 3 to 6 pounds per tree
Large Shrubs and Trees: Use 1/4 to 1/2 pound per plant.
Landscapes: Use 1/3 to 2/3 cupfuls (1/4 to 1/2 lbs.) per 100 square feet. (Manganese deficiency in plants may appear as yellowing of the leaf while the mid vein remains green).

Deficiency symptoms exhibited by palms can be a sign that the pH of the soil is wrong. A pH of 6.0 to 6.5 (Slightly Acid) is the range within which most elements are available to palms. Very few homeowners plant palms on native soil, mostly the elevation of the home is made of fill-soil brought in during construction. This soil is essentially inorganic sand that provides little nutrition to the plants and tends to be alkaline (high pH). This "ties up" many of the essential nutrients making them unavailable to plants. Alkaline soils (high pH) can easily be fixed by the addition **SA-50 Soil Acidifier** to the soil (see label for application rates).

Magnesium deficiency is also common in palms. In contrast to Manganese deficiency, Magnesium deficiency symptoms occur first on the older leaves of the palm and progress up through the canopy. This deficiency can be fixed by regular applications of **SA-50 Magnesium Sulfate**. Magnesium sulfate can be applied along with the manganese sulfate application as a preventative.

CAUTION: MANGANESE SULFATE WILL STAIN MASONRY, ASBESTOS AND MANY OTHER SURFACES.

Guaranteed Analysis

Manganese (Mn)29.0%
 29.0% Water Soluble Manganese (Mn)
 Derived from: Manganese Sulfate

Guaranteed By:

Southern Agricultural Insecticides, Inc.
 P.O. Box 218, Palmetto, FL 34220

WARRANTY STATEMENT

Warranty of this material, either expressed or implied, is limited to a guarantee of the composition as shown on the label in as much as uses are beyond the seller's control. For the same reason, seller is not liable for any injury to living things, crops, soils, or materials which may result from the use or storage of this material.

Try these other fine Southern Ag Products:

SA-50 CHELATED PALM NUTRITIONAL - For use in Correction of Nutritional Deficiency in Trees, Shrubs, Palms, and other Plants.

SA-50 SOIL ACIDIFIER - To Correct deficiencies in Turf, Shrubs, Palms, Trees, Ornamentals, and Vegetables associated with high Soil pH.

SA-50 MAGNESIUM SULFATE - For use in Correction of Magnesium Deficiency in Trees, Shrubs, Palms, and other Plants.

SA-50 MALATHION OIL - For eliminating scale insects.



CAUTION: KEEP OUT OF REACH OF CHILDREN.

May be harmful if swallowed. Avoid breathing dust.
 May cause irritation of skin and eyes. Wash thoroughly after using

Palmetto, FL 34220

Hendersonville, NC 28793

Boone, NC 28607

F672 M1

Net Weight: 5 lbs.(2.27 kg.)