

#### Net Contents:

24 Capsules @ 0.203 fl. oz. (6ml.) each
(4.872 fl. oz. (144 mL) total with micro-injector tubes)
Carton (288 capsules @ 0.203 fl. oz (6ml) each
(58.46 fl. oz (1728 ml) total with micro-injector tubes)
Shipping Box: 12 Cartons as above

\_\_\_\_ 1 Bottle @ 33.81 fl. oz (1 Liter)

\_\_\_\_4 bottles @ 33.81 fl. oz (1 liter) each, (1-gal, 7.3 fl. oz (4 liters) total)

Density: 8.98 lbs. per gallon @ 68° F

# **Guaranteed Analysis**

Total Nitrogen (N)	1.000%	
0.40% Ammoniacal Nitrogen		
0.60% Nitrate Nitrogen		
Soluble Potash (K20)	1.000%	
Sulfur (S)	3.000%	
Copper (Cu)	0.130%	
Iron (Fe)	2.500%	
Manganese (Mn)	1.000%	
1.000% Water Soluble Manganese		
Molybdenum (Mo)	0.001%	
Zinc (Zn)	1.650%	

Derived from Ammonium Sulfate, Potassium Sulfate, Ferrous Sulfate, and Manganese Sulfate, and Zinc Nitrates and Cupric Nitrates, and Molybdic Acid.

# **GENERAL DIRECTIONS**

# **INJECT-A-MIN® MANGANESE 1.0%**

Agricultural Mineral Injectors contain manganese sulfate which are considered quite effective in rapidly overcoming manganese deficiencies in many species of trees.

This injection treatment is particularly useful in trees where successful correction of deficiencies cannot be produced by foliage or soil feeding. This injection treatment should be applied no more than once per year. Under some conditions, it may be desirable to alternate with Stemix Plus for the greatest assortment of Agricultural Minerals.

**Notice**: The J.J. Mauget Co. shall not be liable in respect to any injury or damage suffered solely by reason of the use of this product for a purpose not indicated on this label, or when used contrary to the printed directions or in respect to the breach of any warranty expressed on the label.

**CAUTION**: The application of fertilizing materials containing molybdenum may result in forage crops containing levels of molybdenum which are toxic to ruminant animals.

Information regarding the contents and levels of metals in this product is available on the internet at: http://www.aapfco.org/metals.html



J.J. MAUGET CO. 129 Growth Center Dr. NE #A Floyd, VA 24091 Made In U.S.A 626-444-1057

# **DIRECTION FOR USE**

IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN ANY MANNER INCONSISTENT WITH ITS LABELING.

Do not apply this product in a way that will contact workers or other persons, either directly or through drift. For any requirement specific to your State or Tribe, consult the agency responsible for pesticide regulation.

# AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and the Worker Protection Standard, 40 CFR 170. This standard contains requirements for the protection of agricultural workers on farms, forest, nurseries and greenhouses, and the handlers of agricultural pesticides. It contains requirements for training, decontamination, notification, and emergency assistance. It also contains specific instructions and exceptions pertaining to the statements on this label about personal protective equipment (PPE). The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

### 1. The MAUGET SYSTEM

(A) Mauget compressible micro-injector with insert hole

(B) Feeder tube with flanged gunsight and opposite tapered beveled end

### <u>2. TOOLS</u>

- (A) Portable Electric Drill
- (B) 11/64 in. (0.4 cm) drill bit
- (C) Optional soft-headed Mallet or Hammer
- (D) Tape Measure
- (E) Insertion Tool (optional)

## 3. NUMBER OF MICRO-INJECTORS

Measure the tree at chest height in inches. If measuring the circumference, divide this number by six (6) to determine the number of micro-injectors needed. If measuring diameter, divide this number by two (2) to determine the number of micro-injectors needed. If the number of micro-injectors results in a fraction, round down to the lower whole number. The health, species of the tree and the environmental conditions will determine the rates of uptake.

#### 4. PRESSURIZING THE MICRO-INJECTOR

Apply the appropriate amount of pressure on the top of the micro-injector capsule in order to compress.

#### 5. DRILLING THE TREE HOLE

It is recommended to Predrill spaced injection sites at a slight downward angle at the root flair/buttress area (approximately 6.0 to 8.0 in., (15 to 20 cm) above ground level, using a clean 11/64 in. (0.4 cm) drill bit (except monocotyledons, conifers etc.). Drill to a depth of 3/8-to-1/2 in. (0.60-to-1.3 cm) into healthy xylem tissue under the bark. For mini-micro feeder tube, see Step 10. Disinfect drill bit, insertion tool (if used) as well as mini-micro insertion tool prior to use on each tree.

#### 6. TREE HOLE DEPTH

It is important that the feeder tube be set to the proper depth in the conductive xylem tissue. If set too deeply, flow is restricted by blockage in the heartwood; if set too shallow, leakage may occur. The feeder tube dispensing end is beveled to allow fora 1/4 in. plus tolerance.

## 7. COMBINING MICRO-INJECTOR AND FEEDER TUBE

Several methods of combining the micro-injector capsule with the feeder tube are acceptable including placing by hand, the feeder tube's flange end, with the flange notch upward, into the micro-injector insert hole of a compressed upright micro-injector capsule. Push the flange end of the feeder tube flush with the membrane located at the inner end of the insert hole.

#### 8. PLACING THE FEEDER TUBE IN THE TREE

It is recommended to firmly seat the beveled, dispensing end of the feeder tube, with the attached upright micro-injector capsule, into the predrilled tree injection hole. Tap the rear side, opposite the insert hole of the micro-injector capsule either with a optional mallet, hammer or push forward with the palm of your hand. This action will simultaneously seat the feeder tube in the injection hole while breaking the micro-injector capsule membrane for releasing the micro-injector capsule contents into the feeder tube and into the tree. Another method is to place the feeder tube in the predrilled hole of the tree using the optional insert tool. Then place the compressed micro-injection capsule onto the feeder tube in place.

#### 9. REMOVAL

Uptake in the tree usually occurs within several minutes. Micro-Injectors may be temporarily rotated in place to see if any liquid is left. When empty, turn the micro-injectors upside down for one minute before removal. Applicators must remove micro-injectors promptly after treatment. Empty micro-injectors must not be left on the tree. The health and species of the tree, and local environmental conditions will determine the rate of uptake. If the micro-injector capsule does not completely empty within a few hours, invert and carefully remove the micro-injector and enclose it in a heavy-duty plastic bag for disposal in accordance with state and local regulations.

#### 10. MINI-MICRO FEEDER TUBE

For established trees with thin bark (less than 3/8 in. thickness), use a 7/64 in. drill bit to produce a micro-injection site for a minimicro feeder tube Use of the Mini-Micro Insertion tool is recommended.

#### DIRECTION FOR LIQUID LOADABLE TREE INJECTORS

For tree injection use with liquid loadable tree injectors. Follow manufacturer's directions and precautions in the use of liquid loadable, pressure injector systems. Measure the tree at chest height in inches. If measuring the circumference of the tree, divide this number by six (6) to determine the number of injection sites needed. If measuring the diameter of the tree (DBH), divide this number by two (2) to determine the number of injection sites needed. It is preferred to apply the injector sites into the active sapwood, evenly spaced around the tree at the root buttress region avoiding the root valleys. Good injection practices should be followed. The following rates are generally recommended as a function of tree diameter at breast height (DBH).

3 ml per inch DBH for trees 2 inches DBH and above.

Dosage per injection site is determined by dividing the number of injection sites into the total dosage per tree as per the above rate schedule. The health of the tree and the environmental conditions will determine the rate of uptake.

## APPLICATION EQUIPMENT

**INJECT-A-MIN® MANGANESE 1%** is a water-based fertilizer for use with liquid loadable injectors. Test Inject-A-Min® Manganese 1% for compatibility with the injector and its liquid contact components before regular use. Clean the interior of the injector with water to remove any residual liquid from prior use. Disinfect injector tips between tree injections use. Applicators should use liquid loadable injector equipment/devices with care and in a safe manner, in addition to following each manufacturer's directions and precautions.