



## FOR TREE INJECTION AND FOLIAR APPLICATIONS TO SHRUBS, VINES, & GROUND COVERS

Mn-jet Fe is formulated to be applied by trunk injection to shade trees and palms. It may also be used as a foliar application for flowering trees, shrubs, vines and ground cover plants. Both applications are intended to alleviate mineral deficiencies. Mn-jet Fe provides Potassium and essential minerals, such as Copper, Manganese, Iron, Zinc and sufficient Boron to help alleviate symptoms of chlorosis (leaf yellowing) in plants.

GRADE 0 - 0 - 1

### GUARANTEED ANALYSIS:

Soluble Potash (K <sub>2</sub> O) .....	1.0%
Boron (B) .....	0.10%
Copper (Cu) .....	0.10%
0.10% Water Soluble Copper (Cu)	
Iron (Fe) .....	2.0%
2.0% Water Soluble Iron (Fe)	
Manganese (Mn) .....	2.0%
2.0% Water Soluble Manganese (Mn)	
Zinc (Zn) .....	0.5%
0.50% Water Soluble Zinc (Zn)	

Derived from: Potassium hydroxide, Ferrous sulfate, Manganese sulfate, Zinc sulfate, Copper sulfate, and Boric acid.

### F1813

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

**CAUTION:** This fertilizer contains boron, which may be injurious to certain crops. Contact your local county agent or field consultant for specific information.

Best land management practices should be used at all times with any fertilizer or soil amendment; this material should be prevented from entering any public or private water supply (including wells) and any lakes, streams, or rivers.

**NET CONTENTS: 1.06 QUARTS (1.0 Liter)**

**NET WEIGHT: 2.98 LBS (1.35 KG)**

## GENERAL USE INFORMATION

The most common causes of shade tree chlorosis are deficiencies in Manganese and Iron. Mn-jet Fe significantly reduces interveinal chlorosis symptoms due to these micronutrient deficiencies and normally need only be injected every second or third year. Mn-jet Fe improves tree vitality and enhances the natural green color of trees, restoring the aesthetic qualities of shade trees.

If root system deficiency is determined to be the cause of foliar chlorosis, Mn-jet Fe should be applied in combination with Short-stop® and other soil treatments that will enhance root growth, such as NutriRoot®.

## APPLICATION & USES

Iron and Manganese deficiencies are often associated with calcareous, arid or sandy soil conditions affecting seasonal growth in trees. Use in landscape trees and ornamental shrubs and plants where iron and manganese deficiencies are difficult to control by soil applications. Use to promote green foliage.

### Treatment Uses

Iron and Manganese Deficiencies  
Nutrient Deficiencies  
Leaf Yellowing  
Interveinal Chlorosis

### Conditions

Alkaline Soils  
Sandy Soils  
Arid Soil Conditions

For optimum results, treat trees prior to new growth. Systemic activity occurs when Mn-jet Fe moves upward into the crown where it is utilized for new leaf growth. Treatments will aid in the development of green foliage. Older leaves are unlikely to recover from severe nutrient deficiencies.

## DIRECTIONS FOR USE

Mn-jet Fe is formulated to be injected into shade trees and palms and utilized as a foliar application to small trees, shrubs, vines and ground covers. Mn-jet Fe is designed for use with the Arborjet tree injection systems. It may be used with other injection devices that meet the application and label requirements. Follow equipment manufacturer's directions for use. Make sure to clean equipment after use with a recommended cleaning product such as Clean-jet. Applications of Mn-jet Fe can be made from the time of leaf maturity and through the growing season using the LOW RATE. Applications at the HIGH RATE dosage can be made just prior to leaf drop or after leaf drop in the fall. Re-apply Mn-jet Fe when chlorotic symptoms reappear. In situations where the cause of chlorosis is not apparent, a soil test and / or leaf tissue test may assist in diagnosing the cause of chlorosis.

**Warning: Applications made during the growing season using the HIGH RATE may result in leaf burn and premature leaf drop.**

## CAUTIONARY STATEMENTS

Water trees first if drought stressed to avoid plant injury.

Failure to follow the use directions and precautions on this label may result in plant injury.

## DIRECTIONS FOR TREE INJECTION: HARDWOOD AND CONIFEROUS TREES

Measure the diameter of the tree at breast height (DBH) in inches. If measuring circumference, divide the measurement by 3 to determine DBH. Use the table to determine the rate to apply. Multiply rate (for example, the early summer rate) of 5 mL / inch DBH by the inch DBH of the tree. If the tree is 10" in diameter, then the dose per tree is 5 mL x 10" or 50 mLs. Make applications near the base of the tree, applying one injection hole every 4 to 8" of circumference, rounding up or down to the nearest whole number of injection sites, and dividing the dose equally among the injection sites.

In resinous conifers such as pines and spruces, make applications immediately after drilling the injection hole to minimize resin flow. Alternatively delay injections into conifers until late fall or early winter when ambient daytime temperatures average 32°F.

## MIXING AND DOSING RATES FOR TREE INJECTION

May be used as formulated or diluted with water.

Low Rate: 5mL/inch DBH	High Rate: 10-15mL/inch DBH
Can be applied during growing season (after leaves harden off) Recommended rate for maples and conifers	Only apply during late summer or fall

Product may be diluted with 1 to 3 parts water

## DIRECTIONS FOR PALM INJECTION

Use canopy spread to determine the dose per palm. In general, make applications into the trunk from 1-3 ft. from the soil, above the lignified tissues. Only one injection site is needed to make applications in palms.

### Dose per Palm

Canopy Size	Canopy Spread	Dose (mLs)
Small	6-12'	10-25
Medium	12-24'	25-50
Large	24-48'	50-75

## SPRAY RATES FOR SMALL TREES, SHRUBS, VINES AND GROUND COVERS

Dilute 1 part Mn-jet Fe in 100 parts water. Add at least ½ volume of water to spray tank before adding Mn-jet Fe. Add recommended amount (see below) of Mn-jet Fe, and then bring up to volume. For example, to spray for the maintenance rate, add 32 fl oz. water to tank, then add 0.75 oz. Mn-jet Fe, mix, then bring up to volume by adding the remainder of water (43 fl oz.).

### Application Rates:

**Maintenance:** use 1 quart per acre or 0.75 fl. oz. (20mLs) per 1000 sq. ft.

**Slight Deficiency:** use 2 quarts per acre or 1.5 fl. oz. (45mLs) per 1000 sq. ft.

**Severe Deficiency:** use 3 quarts per acre or 2.25 fl. oz. (70mLs) per 1000 sq. ft.

The addition of a spreader sticker is recommended. Spray to thoroughly cover the underside of foliage until wet. Apply throughout the growing season, making applications once every 30 – 60 days.

### Fogger Instructions

**\*DO NOT APPLY PRODUCT WITH THERMAL FOGGERS\***

**\*Always test new products on a small scale for plant safety before applying to larger areas.\***

### NON-THERMAL (cold fog), ULV (ultra-low volume) Aerosol

**Application:** using any standard ULV ground applicator capable of producing a non-thermal aerosol spray. Adjust flow rates accordingly to vegetation density and coverage area.

For best results, treat during the cool hours of early morning or evening and when conditions are conducive to keeping the fog close to the ground. Air temperatures should be greater than 50° F and wind speeds less than 10mph.

## COMPATIBILITY

The physical compatibility of Mn-jet Fe should be tested before use with other products. To determine the physical compatibility of Mn-jet Fe with other products, use a jar test as described below.

1. Add proportionate amounts of the two products to 1 pint of water, and thoroughly mix.
2. Wait at least 5 minutes. If the combination remains mixed it is physically compatible. It is incompatible if precipitates form.
3. If compatible, use the same procedure for adding required ingredients to the formulation tank.

**NOTE:** Tank mixtures not specifically listed on this label are the sole responsibility of the user/applicator. The safety of all potential tank mixes on all trees listed on this label may not have been tested. Before applying any tank mixture not specifically recommended on this label, the safety to the target tree should be tested.

## WARRANTY DISCLAIMER

Arborjet, Inc. warrants that this product conforms to the chemical description on the label and is reasonably fit for the purposes stated on the label when used in strict accordance with the directions, subject to the inherent risks set forth below.

**Arborjet makes no warranty of fitness of this product for any other purpose, beyond its uses under normal conditions in keeping with the statements made on this label.**

## INHERENT RISKS OF USE

It is impossible to eliminate all risks associated with use of this product. Plant injury, lack of performance, or other unintended consequences may result because of such factors as unfavorable temperatures, soil conditions, etc., presence of other materials, or the manner of application, all of which are beyond the control of Arborjet, Inc. or the seller. All such risks shall be assumed by the buyer.

## STORAGE AND DISPOSAL

Do not contaminate water, food, or feed by storage or disposal

Keep from freezing

Store in a cool, dry place

**DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility.

**CONTAINER DISPOSAL:** Dispose of or recycle empty bottles in a sanitary landfill or by incineration if approved by State and Local authorities.

### KEEP OUT OF REACH OF CHILDREN

**Harmful if swallowed. Avoid contact with eyes, skin and clothing. Wash thoroughly after use.**