

FI-2000 SOIL EROSION POLYMER

FI-2000 is a anionic high molecular weight water soluble polymer designed to reduce soil loss and silt loss in all aspects of agricultural irrigation. **FI-2000 is an emulsion that can be applied to furrow, gated pipe, sprinkler and pivotal irrigations systems.** FI-2000 will increase water infiltration and reduce fertilizer and other chemical runoff. Similar materials have shown to reduce soil loss by up to 97%.

Soil and silt loss is caused by suspended soil particles flowing through water and eroding the sides and bottom of the furrows and other channels. The anionic polymer bonds the suspended particles in the water and they fall to the bottom of the water. The emulsion polymer increases the bonding among soil particles to further reduce soil loss and water runoff which is inherent with overhead sprinkler and pivotal systems. The original soil matrix is aided by the application of FI-2000 to irrigated water. The pore spaces which could become blocked by fine silt is reduced which helps maintain water infiltration. FI-2000 will reduce soil crusting. If crusting is already present, the polymer will not eliminate this problem.

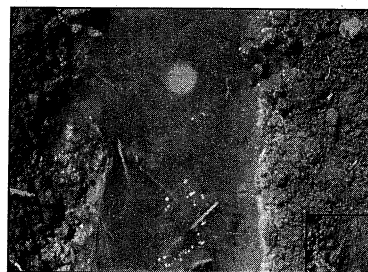
BENEFITS:

- ◆ Reduces soil loss
- ◆ Reduces chemical and fertilizer runoff
- ◆ Increases water infiltration
- ◆ More efficient use of fertilizers and chemicals
- ◆ Cost effective
- ◆ Reduces labor to repair furrows
- ◆ Wide variety of applications for irrigation systems.

APPLICATIONS:

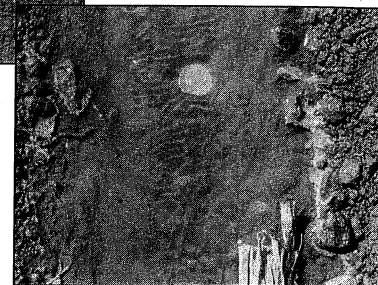
FURROW

FI-2000 should be applied at a concentration level of 30ppm (30 parts per million). Stop treatment of the irrigated water when 90% of the furrows discharge water. The chemical action of FI-2000 will continue during the irrigation even when the product is not present in the water. Treatment application varies upon soil, water properties and grade/slope variances of the field to be treated. A higher



UNTREATED IRRIGATED WATER

TREATED IRRIGATED WATER



application will be required to fields that are susceptible to high erosion. As a general rule, a concentration level of 30ppm is the application rate.

Although FI-2000 is beneficial for every irrigation, it does not have to be applied every time. To achieve the best results, apply to the first irrigation and then apply to alternate irrigations. The material should be applied after the soil is disturbed from cultivation or any other field activity.

PRIOR TO DISPENSING:

1. Place container in upright position with flow cap facing you.
2. Punch or cut out cap plug in center of cap and fasten valve to cap.
3. Faucet should be securely tightened and spout should be perpendicular to the container (spout facing towards you).
4. Make sure faucet handle is positioned towards the container in the off position.
5. Remove vent cap and cut open vent on container.
6. Lay container on side with faucet spout facing down. Position container on a support stand. Elevate back portion of the container 3-4" since dispensing is by gravity.
7. Determine application rate by the below chart (Chart A). Note: Since FI-2000 is dispensed by gravity, the flow rate will slowly decrease when the container is almost empty. Tilt up the back side of the container. **Do not** allow water to splash on the faucet spout.

8. To calibrate the flow rate for your application; use a measuring cup, adjust flow of material with faucet handle to match your application rate.

FI-2000 must be metered above the water turbulence at least 100 feet where the treated water enters the drain tube for the polymer to be mixed properly.

FI-2000 is compatible with most fertilizers. A jar test should be used to verify the compatibility with fertilizers that have suspensions.

The application chart shows the flow of irrigated water in cubic feet per second (CFS) and gallons per minute (GPM). The application rate of FI-2000 is listed in fluid ounces per minute to achieve a concentration level of 30 ppm.

General Application rate is 3 pints (48 oz.) per acre of FI-2000 mixed in irrigation water.

CHART A

Water Flow Rate		Amount of FI-2000 ounces/minute
CFS	GPM	
1	449	1.9
2	898	3.8
3	1346	5.7
4	1795	7.6
5	2244	9.5
6	2693	11.4
7	3142	13.4
8	3590	15.3
9	4039	17.2
10	4488	19.1
11	4937	21.0
12	5386	22.9

Conversions:

1 gallon of water = 8.34 pounds

1 cu. ft water = 7.48 gallons

SPRINKLER AND PIVOT IRRIGATION

FI-2000 should be applied at the same concentration level of 30ppm. To achieve best results, apply to the first irrigation and to alternate irrigations. FI-2000 should be applied after the soil is disturbed from cultivation or any other field activity.

The injector tank must be thoroughly dry and cleaned to remove any chemical that was previously applied (pesticides, fertilizer, etc.) All pumps and tubes must be thoroughly dried with no water present. The tank and tubes should be coated with mineral oil prior to application. Wipe sides of tank with oil and add 2-3 gallons in injector tank. Prime pump and load the line with the mineral oil. Add the dosage of FI-2000 required (Chart B) in the tank. **Note: Do not** store FI-2000 in injector tank after dispensing. Clean pump and entire line after use. Pump 2-3 gallons of mineral oil through the system after cleaning.

The below chart shows the amount of FI-2000 to apply per acre based on quantity of water irrigated per acre.

Chart B

Amount of FI-2000/acre	Amount of Acre inches of water
1/2 gallon (2 qts)	1/2 inch
3/4 gallon (3 qts)	3/4 inch
1 gallon (4 qts)	1 inch
1 1/4 gallon (5 qts)	1 1/4 inch
1 1/2 gallon (6 qts)	1 1/2 inch

Conversion Chart

1 qt. = 32 oz.

1 acre inch of water = 27,154 gallons

4 qt. = gallon

1/2 acre inch = 13,577 gallons

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