

FI-1000

SOIL EROSION POLYMER

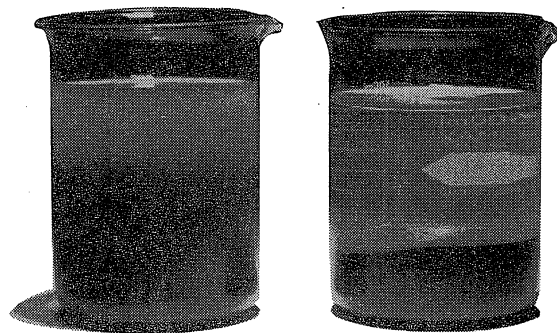
FI-1000 is a anionic high molecular weight polymer designed to reduce soil loss and silt loss in furrow irrigation applications. **FI-1000** will increase water infiltration and reduce fertilizer and other chemical runoff. Similar materials have shown to reduce soil loss by up to 97%.

Soil and silt loss is caused by suspended soil particles flowing through water in irrigated furrows and eroding the sides and bottom of the furrow. The anionic polymer bonds the suspended particles in the water and they fall to the bottom of the water. The polymer also significantly increases the bonding among soil particles in the treated furrow. This chemical bond reduces soil erosion in irrigated water.

The original soil matrix is aided by the application of **FI-1000** to irrigated water. The pore spaces which could be blocked by fine silt are reduced which helps maintain water infiltration.

BENEFITS:

- ◆ Reduces soil loss
- ◆ Reduces chemical and fertilizer runoff
- ◆ Increases water infiltration
- ◆ More efficient use of fertilizers and chemicals
- ◆ Cost effective, only one pound per acre of irrigated water.



APPLICATIONS:

There are two basic methods of application.

DRY MIXING:

FI-1000 can be added to the water in the dry powder form. A commercial hopper or metering box should be used. Application rate is one pound per acre (12,000 gallons of water). The polymer must be dispensed over the duration of the entire irrigation. There must be strong water turbulence at the beginning of the ditch where the treated water enters the drain tube. **FI-1000** must be mixed above the water turbulence (at least 100 feet where the treated water enters the drain tube) for the polymer to be mixed properly. When dispensing the dry polymer, it is important that splashing water or rain does not come in contact with the powder.

REMIXING:

The best method to apply **FI-1000** to irrigated water is to mix the product in dissolved stock solutions prior to application in irrigated water. The stock solution should be 0.1% polymer by weight. To make 0.1% solution, add the below amounts:

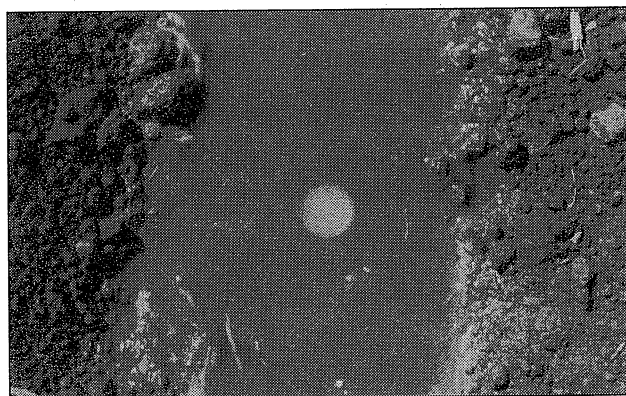
Tank size (gallons)	FI-1000 required (pounds)	Total amount of water treated (gallons)
100	.8	10,000
250	2.0	25,000
500	4.1	50,000
1000	8.3	100,000
1500	12.5	150,000
2500	16.6	250,000

To make the stock solution, the polymer must be slowly poured in the water with a dry powder feeder. CAUTION: Do not allow rain or splashing water to come in contact with the dry powder before mixing. The water should be continuously mixed while the product is being applied. The solution should be agitated thoroughly for thirty to sixty minutes prior to application to ensure the polymer is thoroughly dissolved. Water temperature of the stock solution should be at least 50°F. The prepared stock solution should be used within one week. **Apply one part of stock solution to 100 parts of irrigated water.** The concentration level of polymer to irrigated water is 10 ppm. NOTE: Since FI-1000 bonds suspended soil particles in water, drain and syphon tubes should be inspected to avoid clogging.

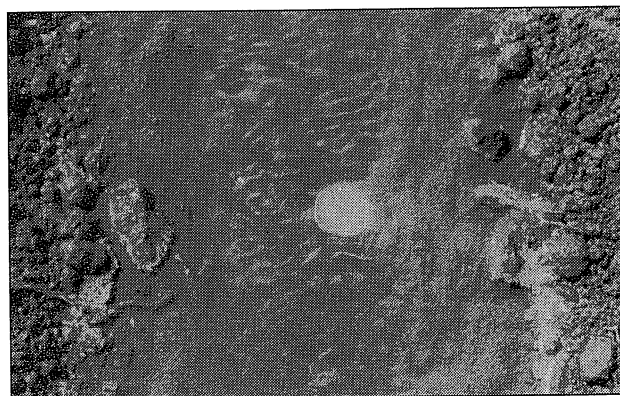
TYPICAL PROPERTIES:

Appearance:	White granular powder	Viscosity:	Solution %	cps
Grade Size:	1.20mm		0.50	1790
Stability (dry Product):	2 years		0.25	640
Stability in solution:	7-10 days		0.10	160
Brookfield viscosity in cps at 30rpm				

FI-1000 is compatible with most fertilizers. A jar test should be performed to verify the compatibility with fertilizers that have suspensions.



UNTREATED IRRIGATED WATER



TREATED IRRIGATED WATER WITH FI-1000

JRM Chemical, Inc.

15663 NEO Parkway
 Cleveland, Ohio 44128
 216-475-8488
 800-962-4010
 Fax: 216-475-6517