



NET WEIGHT
18 kg (40 lbs)

FORMULATED IN AN INOCULANT CARRIER

NOT A PLANT FOOD PRODUCT

GUARANTEED MINIMUM ANALYSIS:

- 100 million (1 x 10⁸) viable *Rhizobium leguminosarum* biovar *viceae* per gram.
- Product contains a minimum of 2 x 10⁻⁸ % lipo-chitooligosaccharide.

CAUTION:

Avoid prolonged or repeated skin contact or inhalation of dust. Recommend wearing of dust mask, safety glasses and protective gloves.

- **STORE IN A COOL PLACE AND KEEP BAG TIGHTLY CLOSED.**
- **USE BEFORE EXPIRATION DATE.**
- **DO NOT BAND THIS MATERIAL. IT MUST BE APPLIED IN-FURROW.**
- **IMPORTANT: STORE FLAT UNTIL READY TO USE.**
- **USE BEFORE DATE PRINTED ON TAPE.**

LIMITED WARRANTY: EMD Crop BioScience Inc. (the seller of this product is referred to herein as "EMD") guarantees that this product conforms to its label description and is suitable for its intended use if stored and used strictly in accordance with label directions under normal conditions of use. EMD, through its distributors, must be notified of any field performance complaint within seventy (70) days after planting. EMD's sole obligation under this warranty shall be to refund the purchase price. EMD SHALL NOT BE LIABLE FOR AND DISCLAIMS ALL CONSEQUENTIAL, INCIDENTAL AND CONTINGENT DAMAGES WHATSOEVER. Without limiting the foregoing, EMD shall not be responsible for loss or partial loss of crop from any cause whatsoever. EMD SHALL NOT BE SUBJECT TO ANY OTHER OBLIGATIONS OR LIABILITIES, WHETHER ARISING OUT OF BREACH OF CONTRACT, WARRANTY, TORT (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR OTHER THEORIES OF LAW. THIS WARRANTY IS EXCLUSIVE AND IN LIEU OF ALL OTHER REPRESENTATIONS AND WARRANTIES, EXPRESS OR IMPLIED, AND SELLER EXPRESSLY DISCLAIMS AND EXCLUDES ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE.

THE ABOVE LIMITED WARRANTY IS VOID WHERE PROHIBITED BY LAW.

U.S. Patent 5,549,718 5,646,018 5,175,149 5,321,011 6,979,664



Manufactured by
EMD Crop BioScience

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SPECIMEN LABEL

Product No. 1778

DIRECTIONS FOR USE

READ DIRECTIONS BEFORE USE.

1. APPLICATION EQUIPMENT: *Optimize Pulse IF* is best applied with the following granular application equipment: a) dedicated air seed tank; b) bulk granular applicators (Beline, Valmar, etc.); c) hoe-drill or press-drill units (adjust short flexible tubing from hopper to planter unit so that it is as straight and vertical as possible). *Optimize Pulse IF* may also be applied through granular insecticide boxes or standard grain drills. Clean tank/hopper, rotor and calibration mechanism thoroughly before filling.
2. DETERMINE APPLICATION RATE: *Optimize Pulse IF* should be applied in-furrow at the rate of 40 grams per 300 meters (1.4 ounces per 1000 feet) of row.
3. CALIBRATE EQUIPMENT before each use. Follow calibration instructions supplied by the equipment manufacturer. Set controls at a larger opening and adjust down to give the desired application rate of 40 grams per 300 meters (1.4 ounces per 1000 feet) of row.

Metric system: To apply at the rate of 40 grams per 300 meters of row, calibrate equipment to place 5.6 kilograms per hectare for 23 centimeter rows. Adjust equipment down, only a small amount at one time – then try.

NOTE: 70 ml of *Optimize Pulse IF* weighs approximately 40 grams. If planting in other than 23 centimeter rows, use the following table to determine the amount of *Optimize Pulse IF* required per hectare:

Row Width (centimeters)	76.0	55.9	38.0	30.0	23.0	17.8
Kilograms/Hectare	1.8	2.4	3.5	4.4	5.8	7.5

U.S. customary system: To apply at the rate of 1.4 ounces per 1000 feet of row, calibrate equipment to place 5 pounds per acre for 9 inch rows. Adjust equipment down, only a small amount at one time – then try.

NOTE: One-quarter cupful of *Optimize Pulse IF* weighs approximately 1.4 ounces. If planting in other than 9 inch rows, use the following table to determine the amount of *Optimize Pulse IF* required per acre:

Row Width (inches)	30	22	15	12	9	7
Pounds/Acre	1.5	2.1	3.0	3.8	5.1	6.5

4. NOTE: Some growers have increased yields by using application rates in excess of 40 grams per 300 meters (1.4 ounces per 1000 feet) of row. There is no danger in using heavy doses of *Optimize Pulse IF*.
5. Do not fill tank/hopper until you get to the field. Remove all unused *Optimize Pulse IF* inoculant at completion of day's work. Do not allow to remain in tank/hopper overnight.

FLOWABILITY:

1. *Optimize Pulse IF* flow may be affected by humid conditions. Clean rotor and adjustable opening often to insure good flow. See limited warranty below.
2. Do not use Chemical-Saver meter roller on John Deere MaxEmerge™ Plus planters. Remove system while *Optimize Pulse IF* is being used.