



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF CHEMICAL SAFETY  
AND POLLUTION PREVENTION

October 7, 2021

Jolanta Ozatalay  
Regulatory Manager  
Fine Agrochemicals  
1850 Mt. Diablo Blvd. #405  
Walnut Creek, CA 94596

Subject: Non-PRIA (Pesticide Registration Improvement Act) Labeling and Formulation Amendment – Combine the basic and alt. 1 Confidential Statements of Formulas into one basic CSF, add an inert supplier, and correct the manufacturing site address, in addition to correcting a cytokinin calculation error on the product label  
Product Name: FAL 1770  
EPA Registration Number: 62097-55  
Application Date: 09/25/2020  
OPP Case Number: 00144306

Dear Ms. Ozatalay:

The amended labeling and Confidential Statement of Formula (CSF) referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, are acceptable.

This approval does not affect any terms or conditions that were previously imposed on this registration. You continue to be subject to existing terms or conditions on your registration and any deadlines connected with them.

Please note that the record for this product currently contains the following acceptable.

- Basic CSF dated 09/25/2021

Any CSFs other than that listed above are superseded/no longer valid.

A stamped copy of your labeling is enclosed for your records. This labeling supersedes all previously accepted labeling. You must submit one (1) copy of the final printed labeling before you release this product for shipment with the new labeling. In accordance with 40 CFR § 152.130(c), you may distribute or sell this product under the previously approved labeling for 18 months from the date of this letter. After 18 months, you may only distribute or sell this product if it bears this new revised labeling or subsequently approved labeling. “To distribute or sell” is defined under FIFRA section 2(gg) and its implementing regulation at 40 CFR § 152.3.

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EPA Reg. No. 62097-55

OPP Decision No. 00144306

Should you wish to add/retain a reference to your company's website on your label, then please be aware that the website becomes labeling under FIFRA and is subject to review by the U.S. Environmental Protection Agency (EPA). If the website is false or misleading, the product will be considered to be misbranded and sale or distribution of the product is unlawful under FIFRA section 12(a)(1)(E). 40 CFR § 156.10(a)(5) lists examples of statements the EPA may consider false or misleading. In addition, regardless of whether a website is referenced on your product's label, claims made on the website may not substantially differ from those claims approved through the registration process. Therefore, should the EPA find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA-approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

Your release for shipment of this product constitutes acceptance of these terms. If these terms are not complied with, this registration will be subject to cancellation in accordance with FIFRA section 6.

If you have any questions, please contact James Parker by phone at (703) 306-0469 or via email at [parker.james@epa.gov](mailto:parker.james@epa.gov).

Sincerely,

A handwritten signature in blue ink that reads "Andrew C. Bryceland". The signature is fluid and cursive, with a long horizontal stroke at the end.

Andrew Bryceland, Team Leader  
Biochemical Pesticides Branch  
Biopesticides and Pollution  
Prevention Division (7511P)  
Office of Pesticide Programs

Enclosure

# FAL 1770

Plant Growth Regulator

**ACCEPTED**

Oct 07, 2021

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended, for the pesticide registered under EPA Reg. No. 62097-55

**Active Ingredients:**

3-Indolebutyric acid (IBA) .....	0.85%
Cytokinin, (as Kinetin) .....	0.15%
Other Ingredients:.....	<u>99.00%</u>
TOTAL:.....	100.00%

Contains 0.076 lbs indolebutyric acid/gallon  
Contains 0.0134 lbs cytokinin/gallon

EPA Reg. No. 62097-55

EPA Est. No.

Net Contents:

**KEEP OUT OF REACH OF CHILDREN**

**PRECAUTIONARY STATEMENTS**

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**Applicators and other handlers must wear:**

- Long sleeved shirt and long pants,
- Shoes plus socks.

Follow the manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

**USER SAFETY RECOMMENDATIONS**

Users should:

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

**ENGINEERING CONTROLS STATEMENT**

When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

## ENVIRONMENTAL HAZARDS

Do not apply directly to water, to areas where surface water is present or to intertidal areas below the mean high water mark. Do not apply when weather conditions favor drift from treated areas. Do not apply where runoff is likely to occur. Do not contaminate water when cleaning equipment or disposing of equipment wash waters or rinsate.

## DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a 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. Only protected handlers may be in the area during applications. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

## AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR part 170. This Standard contains requirements for the protection of agricultural workers on farms, forests, nurseries, and greenhouses, and 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 the label about personal protective equipment (PPE), and restricted-entry interval. The requirements in this box only apply to uses that are covered by the Worker Protection Standard.

Do not enter or allow entry into treated areas during the restricted-entry interval (REI) of 4 hours unless wearing appropriate PPE.

PPE required for early entry to treated areas that is permitted under the Worker Protection Standard and that involves contact with anything that has been treated, such as plants, soil, or water is:

- \* Coveralls
- \* Shoes plus socks.

## NON-AGRICULTURAL USE REQUIREMENTS

The requirements in this box apply to uses of this product that are NOT within the scope of the Worker Protection Standard for agricultural pesticides (40 CFR Part 170). The WPS applied when this product is used to produce agricultural plants on farms, forests, nurseries or greenhouses.

Do not enter or allow others to enter the treated areas until sprays have dried.

## PRODUCT INFORMATION

FAL 1770 is a combination of two plant growth regulators (PGRs): 3-Indolebutyric acid (IBA) and Cytokinin, as Kinetin. FAL 1770 promotes improved early root and shoot development, increased vegetative growth and promotes growth development of flowers and fruit. When applied to plant cuttings and transplants FAL 1770 stimulates root growth and reduces transplant shock. Read and follow the directions for use in the sections below. Instructions for use on specific crops are provided in this label.

- FAL 1770 can be tank mixed and applied with in-furrow fertilizers to improve early season seedling shoot and root development. All possible combinations of fertilizers with FAL 1770 have not been tested. As such, perform a test mix of the materials to be used in the tank mix with FAL 1770, as shown in the Compatibility section below, to evaluate compatibility of the mixture prior to preparing a larger amount for application in the field. Failure to do so could result in crop injury or lack of performance.

- Tank mixes of FAL 1770 and in-furrow fertilizers must be mixed thoroughly and applied within 1 day of mixing. Agitation must be maintained to assure proper dispersal of the FAL 1770 in the fertilizer.
- FAL 1770 may be applied to plant cuttings and transplants to stimulate root growth and reduce transplant shock.
- Foliar applications of FAL 1770 promote early season plant growth and development.
- Apply FAL 1770 utilizing properly calibrated application equipment. Failure to do so may result in an improper application to the crop which could result in injury to the crop or lack of performance.
- Clean spray equipment thoroughly using a strong detergent or commercial sprayer cleaner according to the manufacturer's directions before and after applying FAL 1770.
- This product cannot be used to formulate or reformulate any other pesticide product.

A surfactant may be included in the tank mix with FAL 1770. Any adjuvant or surfactant added to the tank mix must follow the label instructions for that product and should not be used on large acreages without prior experience with that product in such tank mixes and on the specific crop to be treated. If the user does not have experience with the adjuvant or surfactant in the desired tank mix, treat a small test area of the crop and evaluate before treating larger acreages. It is also advised to contact your local extension service, crop consultant or field representative for recommendations before treating a crop with a product or product combinations for which the user does not have prior experience.

## **COMPATIBILITY**

The compatibility of FAL 1770 with other agricultural products has not been fully investigated. Compatibility of FAL 1770 with other products requires testing for crop safety and performance prior to large-scale use. Products mixed with FAL 1770 must be acidic (pH less than 7). Do not mix FAL 1770 with any product(s) having a pH greater than 7.

Conduct a compatibility test when you plan to mix FAL 1770 with other products. To determine the physical compatibility of FAL 1770 with other products, use a jar test. Using a quart jar, add the proportionate amounts of the products to approximately one quart of water with agitation. Add dry formulations first, then flowables, and then emulsifiable concentrates last. After thorough mixing, allow this mixture to stand for 5 minutes. If the combination remains mixed or can be readily remixed, it is physically compatible. Once compatibility has been proven, use the same procedure for adding products to the spray tank. Follow the more restrictive labeling requirements of any tank mix partner. Do not tank mix with products whose label prohibits tank mixing. Treat a small test plot if new combinations of products are being used for the first time.

### **Tank Mixing Information:**

FAL 1770 is soluble in water but can also be mixed directly into many liquid fertilizers for use in-furrow at planting. FAL 1770 can also be applied in tank mixes as foliar sprays. All possible combinations of fertilizers, pesticides and/or other agricultural tank mix partners have not been evaluated. Tests must be performed for compatibility and crop safety before applying mixes of materials with which the applicator does not have experience and prior to large scale use.

Testing has shown that FAL 1770, when used as per label instructions, does not result in phytotoxicity. However, not all crop varieties and cultivars have been tested with possible tank-mix combinations. Since local conditions can influence crop tolerance, test any tank-mix combination on a small portion of the crop to be treated to ensure crop safety. Read and follow the applicable Directions For Use on all products involved in tank-mixing. Always refer to the most restrictive labeling.

**Tank mixes of FAL 1770 and in-furrow fertilizers must be mixed thoroughly and applied within 1 day of mixing. Agitation must be maintained to assure proper dispersal of the FAL 1770 in the fertilizer.**

## APPLICATION INSTRUCTIONS

**IMPORTANT:** Read the entire "Directions for Use" and the "Notice" before using this product. If terms are not acceptable, return the unopened product container to seller at once.

**NOTICE:** FAL 1770 IS NOT A FERTILIZER. USE IN COMBINATION WITH A GOOD FERTILIZER PROGRAM WHERE INDICATED.

**Table 1. Minimum Spray Volume (Gal/A)**

CROP	GROUND*		AIR*
	Concentrate	Dilute	
Field Crops, Miscellaneous	15.0	15.0	5.0
Berry and Small Fruits, Vegetables, Vines	25.0	100.0	15.0
Pome Fruits, Stone Fruits, Tree Crops and Tree Nuts	50.0	200.0	20.0
Citrus	100.0	300.0	

\* Volumes expressed in this table are for the entire spray mix volume to be applied per acre.

**Special considerations:** Depending upon the equipment used, and specific crop, spray volume applied per acre will differ. Apply sufficient water volume to ensure thorough coverage. Repeated application may be necessary if it rains within 2 hours after application.

**Table 2. Application Product Rates & Timings by Crop**

Crop	Amount of FAL 1770	Application Instructions & Timings
Asparagus	2.0 fl oz/A or 13.0 fl oz/100 gallons water	Apply after harvest when asparagus is in fern stage. Repeated applications can be made every 10 to 14 days.
Berry and Small Fruit including Blackberry, Blueberry, Caneberry, Kiwi and Raspberry (except Grape and Strawberry)	2.0* fl oz/A or 13.0 fl oz/100 gallons water	Make the 1st application at the 2 to 4 true leaf stage application. 2 <sup>nd</sup> application: May be made 10 to 14 days after the 1 <sup>st</sup> application before bloom. 3 <sup>rd</sup> application: 1 to 2 weeks after harvest. 4 <sup>th</sup> application: 10 to 14 days later.
Brassica Vegetables including Broccoli, Cabbage, Cauliflower and Mustard greens	2.0* fl oz/A	Foliar application: Apply to achieve full coverage. 1 <sup>st</sup> application: At 2 to 4 true leaf stage. 2 <sup>nd</sup> application: 10 to 14 days after first application. Use a non ionic surfactant for hard to wet crops such as Cabbage.

Bulb Vegetables including Garlic, Leek, Onion	2.0* fl oz/A	1 <sup>st</sup> application: At 2 to 4 leaf stage.  Repeated applications can be made every 10 to 14 days up until 10 days prior to harvest.  Thorough coverage and leaf wetting is required.
Cereal Grains including Barley, Corn <sup>(1)(2)</sup> (field, pop, sweet), Millet, Oats, Rice, Sorghum and Wheat	2.0* fl oz/A	1 <sup>st</sup> application: At 2 to 4 true leaf stage. 2 <sup>nd</sup> application: 10 to 14 days after first application
Citrus Fruit including Grapefruit, Lemon, Lime, Sweet Orange and Tangerine	2.0* fl oz/A or 13.0 fl oz/100 gallons water	Apply when fruit are 5 mm in size. Make additional applications if needed.  Thoroughly apply spray for optimum coverage.
Cotton <sup>(1)(2)</sup>	2.0* fl oz/A	1 <sup>st</sup> application: At 2 to 4 true leaf stage.  Repeated applications can be made every 10 to 14 days.
Cucurbit Vegetables including Cantaloupe, Cucumber, Honeydew, Muskmelon, Squash (summer and winter) and Watermelon	2.0* fl oz/A	1 <sup>st</sup> application: At 2 to 4 true leaf stage.  Repeated applications can be made every 10 to 14 days up until 10 days prior to harvest.
Forage, Fodder and Straw of Cereal Grains	2.0* fl oz/A	1 <sup>st</sup> application: At 2 to 4 true leaf stage. 2 <sup>nd</sup> application: 10 to 14 days after 1 <sup>st</sup> application.  Additional applications between cuttings will improve root structure and increase stand vigor.
Fruiting Vegetables including Eggplant, Pepper and Tomato	2.0* fl oz/A or 13.0 fl oz/100 gallons water	1 <sup>st</sup> application: At 2 to 4 true leaf stage.  Repeat applications every 10 to 14 days up until 10 days prior to harvest.
Grass Forage, Fodder and Hay	2.0* fl oz/A	1 <sup>st</sup> application: At 2 to 4 true leaf stage. 2 <sup>nd</sup> application: 10 to 14 days after 1 <sup>st</sup> application.  Additional applications between cuttings will improve root structure and increase stand vigor.
Grass Grown for Seed including Perennial Ryegrass, Tall Fescue or Bentgrass	2.0* fl oz/A	Apply when growth resumes in the spring.  Repeated applications can be made every 10 to 14 days up until 30 days prior to harvest.
Grape	4.0 to 6.0 fl oz/100 gallons water	1 <sup>st</sup> application: Apply when grapes are 2 to 3 mm in size. 2 <sup>nd</sup> application: 10 to 14 days after 1 <sup>st</sup> application. 3 <sup>rd</sup> application: 45 days prior to harvest. 4 <sup>th</sup> application: 30 days prior to harvest.

Herbs and Spices including Basil, Dill, Mustard and Sage	2.0* fl oz/A	1 <sup>st</sup> application: At 2 to 4 true leaf stage.  Repeated applications can be made every 10 to 14 days up until 10 days prior to harvest.
Leafy Vegetables including Celery, Head and Leaf Lettuce, Kale and Spinach	2.0* fl oz/A	1 <sup>st</sup> application: At 2 to 4 true leaf stage.  Repeated applications can be made every 10 to 14 days up until 10 days prior to harvest.
Legume Vegetables (Succulent or Dried) including Bean (all types), Peas and Soybeans <sup>(1)(2)</sup>	2.0* fl oz/A	1 <sup>st</sup> application: At 2 to 4 true leaf stage.  Repeated applications can be made every 10 to 14 days.
Non-grass Animal Feeds including Alfalfa, Clover, Hay and Vetch	2.0* fl oz/A	Seedling alfalfa, clover, hay and vetch: Apply at 2 to 4 trifoliate stage.  For established crop, apply at green-up and 5 to 10 days after each cutting.
Oil Seed Crops including Canola <sup>(1)(2)</sup> , Flax and Sunflower	2.0* fl oz/A	1 <sup>st</sup> application: At 2 to 4 leaf stage.  Repeated application can be made every 10 to 14 days until flower.
Peanut	2.0* fl oz/A	1 <sup>st</sup> application: At 2 to 4 true leaf stage.  Repeated applications can be made every 10 to 14 days. From beginning of bloom to beginning of seed fill is a critical period.
Pome Fruits including Apple	2.0* fl oz/A	1 <sup>st</sup> application: At 2 to 4 leaf stage. 2 <sup>nd</sup> application: 10 to 14 days after first application.
Root and Tuber Vegetables including Carrot, Ginseng, Horseradish, Parsley (turnip-rooted), Potato, Radish, Sugar Beet, Sweet Potato, Turnip	2.0* fl oz/A	1 <sup>st</sup> application: At 2 to 4 true leaf stage.  Repeated applications can be made every 10 to 14 days up until 10 days prior to harvest.  Foliar application: thorough spray coverage is necessary.
Stone Fruits including Apricot, Cherry, Peach and Plumcot	2.0* fl oz/A	1 <sup>st</sup> application: At 2 to 4 leaf stage. 2 <sup>nd</sup> application: 10 to 14 days after 1 <sup>st</sup> application.
Strawberry	13.0 fl oz/100 gallons water	1 <sup>st</sup> application: Spray immediately after transplant. 2 <sup>nd</sup> application: 10 to 14 days after 1 <sup>st</sup> application.  Repeated applications can be made every 10 to 14 days.
Sugarcane	2.0* fl oz/A	1 <sup>st</sup> application: At 2 to 4 true leaf stage.  Repeated applications can be made every 10 to 14 days.
Tobacco	2.0* fl oz/A	1 <sup>st</sup> application: At 2 to 4 true leaf stage.  Repeated applications can be made every 10 to 14 days.



Tree Nuts including Almonds, Cashews and Pecans	13.0 fl oz/100 gallons water	One application 2 to 4 weeks after flowering.
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\*If application spray volume is greater than 15.0 gallons per acre, use the dilution rate of 13.0 fluid ounces per 100 gallons water.

[(1) This product can be tank mixed with glyphosate products registered for use on Roundup Ready® crops.]

[(2) This product can be tank mixed with products registered for use on LibertyLink® crops.]

**Table 3. Application Rates & Timings for Soil Applications**

Crop	Amount of FAL 1770	Application Directions and Timing
Asparagus	2.0 to 4.0 fl oz/A	Apply in furrow, through drip systems, other irrigation systems or as a soil drench using correct dilution ratios.  Repeated applications can be made every 10 to 14 days.

**Table 4. Application Rates & Timings for In-Furrow Application**

Crop	Amount of FAL 1770	Application Directions & Timing
Barley, Corn <sup>(1)(2)</sup> (field, pop, sweet), Grain sorghum, Oats, Peanuts, Potato, Rye, Soybean, Sugar beets, Sugarcane and Wheat	2.0 to 4.0 fl oz/A	Apply at planting in the seed furrow or 2 inches beside and 2 inches below seed or with a strip till machine 3 inches below the seed.  Can be applied with or without starter fertilizer.
Cotton <sup>(1)(2)</sup>	2.0 to 4.0 fl oz/A	Can be applied in furrow or in the starter band.
Legume vegetables (Succulent or Dried) including Bean (all types), Peas and Soybeans <sup>(1)(2)</sup>	2.0 to 4.0 fl oz/A	Apply in-furrow or band as a stand-alone or in conjunction with a starter fertilizer.
Oil Seed Crops including Canola <sup>(1)(2)</sup> and Sunflower	4.0 fl oz/A	Apply at planting in the seed furrow or 2 inches beside and 2 inches below seed or with a strip till machine 3 inches below the seed.  Can be applied with or without starter fertilizer.
Root and Tuber Vegetables including Carrot, Ginseng, Horseradish, Parsley (turnip- rooted), Potato, Radish, Sugar Beet, Sweet Potato, Turnip	4.0 fl oz/A	Apply in-furrow or band as a stand-alone or in conjunction with a starter fertilizer.

[(1) This product can be tank mixed with glyphosate products registered for use on Roundup Ready® crops.]

[(2) This product can be tank mixed with products registered for use on LibertyLink® crops.]

**Table 5. Application Rates & Timings For Dip or Drench Transplant Water**

<b>Crop</b>	<b>Amount of FAL 1770</b>	<b>Application Directions and Timing</b>
Berry and Small Fruit, Brassica Vegetables, Bulb Vegetables, Cucurbit Vegetables, Fruiting Vegetables and Leafy Vegetables	13.0 fl oz/100 gallons water	Drench can be delivered at 5.0 to 500 gallons/A. At time of transplant. Drench applications can be delivered as injected transplant solution or dribbled into the seeding trench. If mixed with nutrients check compatibility and be certain of nutrient safety facts.
Tobacco	13.0 fl oz/100 gallons water	At time of transplant. Drench applications can be delivered as injected transplant solution or dribbled into the seeding trench. If mixed with nutrients check compatibility and be certain of nutrient safety facts.

**Table 6. Application Rates & Timings for Drench Applications for Field Grown Perennial Crops**

<b>Crop</b>	<b>Amount of FAL 1770</b>	<b>Application Directions and Timing</b>
Berry and Small Fruit, Citrus, Ornamental Trees, Pome fruits, Stone fruits and Tree Nuts	13.0 fl oz/100 gallons water	Deliver 8.0 to 16.0 ounces of total mix per inch diameter of trunk. Apply monthly anytime the plant is actively growing. Apply with nutrients or other mixes suitable for application 3 to 4 times the trunk diameter up the stem.

**Table 7. Application Rates & Timings for Injection into Drip/Trickle Irrigation**

<b>Crop</b>	<b>Amount of FAL 1770</b>	<b>Application Directions and Timing</b>
Berry and Small Fruit, Citrus, Brassica Vegetables, Bulb Vegetables, Cucurbit Vegetables, Fruiting Vegetables, Grape, Leafy Vegetables, Legume Vegetables, Pome fruits, Root and Tuber Vegetables, Strawberry, Stone fruits and Tree Nuts	16.0 to 32.0 fl oz/A of water zone	1st application at transplanting. Run the system until root zone of the treated crop is at 90% field capacity. Inject FAL 1770 into the system at a sufficient concentration to deliver 16.0 to 32.0 oz/A of water zone in the last 15 minutes of watering. Established crops: can be treated monthly year round or from the beginning of annual production until fruit set. Construction of a uniform delivery system is necessary. Use only tested injection and distribution systems. Crops with larger root volume require higher net dose/A to achieve effective root zone concentration.

Container Grown Ornamentals	13.0 fl oz/100 gallons water	<p>Deliver at 1.0 oz of solution per one inch of container diameter.</p> <p>Apply monthly anytime the plant is actively growing up until 10 days before sale.</p> <p>Construction of a uniform delivery system is necessary. Use only tested injection and distribution systems.</p>
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### TURFGRASS

**For Sod Grass:** Apply FAL 1770 by ground using 20.0 to 40.0 gallons of water per acre. Use 2.5 to 6.5 fluid ounces product in 20.0 gallons to 40.0 gallons of water, respectively, at a 1:1000 dilution rate.

**For Turfgrass:** Apply FAL 1770 by ground according to the table below using 1.0 to 10.0 gallons of water per 1000 square feet. Use FAL 1770 for turf growth suppression at the dilution rate of 1:300 (4.2 fluid ounces product per 10.0 gallons water).

**Table 8. Application Rates & Timings for Applications to Turfgrass.**

Turf	Amount (FAL 1770/Gal Water/ 1000 Sq Ft*)	Application Directions and Timing
Warm climate grasses including Bermuda, Bermuda hybrids, Centipede, St. Augustine & similar warm season grasses	0.13 to 0.65 fl oz/1.0 to 5.0 gal of water/1000 sq ft	Make applications at 2-week intervals during the growing season.
Dichondra	0.65 to 1.3 fl oz/5.0 to 10.0 gal of water/1000 sq ft	Make applications at 2-week intervals during the growing season.
Cool Climate grasses including Bluegrass, Fescue, Rye, and similar cool season grasses	0.13 to 0.65 fl oz/1.0 to 5.0 gal of water/1000 sq ft	Make applications at 2-week intervals during the growing season.

\*Apply 0.13 fluid ounce per gallon.

### GREENHOUSE AND NURSERY

Differences in responsiveness may vary from one cultivar to another or from one set of growing conditions to another. Unless previous experience dictates otherwise, prior to widespread use, test a small number of plants from each cultivar to verify desired efficacy.

**Table 9. Foliar Plants**

Aglaonema	Aphelandra	Dieffenbachia	Fittonia	Maranta	Philodendron	Schefflera	Syngonium
Ajuga	Caladium	Dracaena	Gynura	Palms	Pilea	Schlumberger	Tradescantia
Anthurium	Cissus	Ficus	Hoya	Peperomia	Pothos	Spathiphyllum	Similar foliage plants

**Application Rates and Timings:** Dilute 0.85 fluid ounce of FAL 1770 in 10.0 gallons of water (1:1500 dilution rate) for plants less than 2 years old. Dilute 1.3 fluid ounces FAL 1770 in 10.0 gallons of water (1:1000 dilution rate) for mature plants. Repeat applications at 10 to 14 day intervals when required. Apply the last spray 1 to 2 weeks prior to sale. Uniform and thorough spray coverage is necessary for best results.

**Table 10. Bedding and Flowering Plants**

Abutilon	Carnation	Coral Bells	Foxglove	Gladiolus	Lily	Osmachus	Salvia	Vinca
Aglais	Champaca	Cyclamen	Fuchsia	Gloxinia	Lupine	Petunia	Scabiosa	Zinnia
Alyssum	Chrysanthemum	Dahlia	Gardenia	Impatiens	Marigold	Poinsettia	Sedum	Similar plants
Calceolaria	Cineraria	Delphinium	Gazania	Iris	Michelia	Portulaca	Sempervivum	
Canna	Columbine	Dianthus	Geranium	Jasminum	Monarda	Roses	Tulips	

**Application Rates and Timings:** Dilute 0.85 fluid ounce of FAL 1770 in 10.0 gallons of water (1:1500 dilution rate) for plants less than 2 years old. Dilute 1.3 fluid ounces FAL 1770 in 10.0 gallons of water (1:1000 dilution rate) for mature plants. Repeat applications at 10 to 14 day intervals when required. Apply the last spray 1 to 2 weeks prior to sale. Uniform and thorough spray coverage is necessary for best results.

**Table 11. Woody Ornamentals**

Arborvitae	Azalea	Carissa	English ivy	Juniper	Pine	Rhododendron	Similar plants
Aucuba	Boxwood	Chinese magnolia	Holly	Maple	Podocarpus	Viburnum	

**Application Rates and Timings:** Dilute 0.85 fluid ounce of FAL 1770 in 10.0 gallons of water (1:1500 dilution rate) for plants less than 2 years old. Dilute 1.3 fluid ounces FAL 1770 in 10.0 gallons of water (1:1000 dilution rate) for mature plants. Repeat applications at 10 to 14 day intervals when required. Apply the last spray 1 to 2 weeks prior to sale. Uniform and thorough spray coverage is necessary for best results.

**Table 12. Garden Grown Tree Fruits**

Apple	Cherry	Grape	Lemon	Mango	Persimmon	Starfruit
Asian pear	Fig	Jujubee	Litchi	Orange	Plum	Similar plants
Apricot	Guava	Kumquat	Longara	Peach	Prunes	

**Application Rates and Timings:** Dilute 0.85 fluid ounce of FAL 1770 in 10.0 gallons of water (1:1500 dilution rate) for plants less than 2 years old. Dilute 1.3 fluid ounces FAL 1770 in 10.0 gallons of water (1:1000 dilution rate) for mature plants. Repeat applications at 10 to 14 day intervals when required. Apply the last spray 1 to 2 weeks prior to sale. Uniform and thorough spray coverage is necessary for best results.

## PLANT CUTTINGS

- To propagate new plants from cuttings.
- Treated cuttings can be expected to produce uniform roots resulting in beautiful, symmetrical plants.
- For use on most home, tropical, greenhouse and nursery plants.

Type of Cutting	Dilution rate
Soft wood	1:20 dilution rate (0.5 fluid ounce product in 10.0 fluid ounces of water)
Medium wood	1:10 dilution rate (1.0 fluid ounce product in 10.0 fluid ounces of water)
Hard wood	1:5 dilution rate (2.0 fluid ounces product in 10.0 fluid ounces water)

**For Rooting House Foliage, Tropical and Hardy Ornamentals, Leaf, Greenwood and Softwood Cuttings, Woody ornamentals, Deciduous hardwoods, Evergreens, Ground Covers, and Perennials including:**

Acanthopanax	Catalpa	Dogwood	Heath	Manzanita	Rhododendron
African violet	Chamaecyparis (False Cypress)	Douglas Fir	Heather	Maple	Rose
Apple (ornamental)	Chaste tree	Escallonia	Hemlock	Matrimony vine	Russian Olive
Arborvitae, American	Chestnut	Euonymus	Hibiscus	Minor	Snowball
Arbutus	Chokeberry	Flowering Crab apple	Holly	Myrtle	Sourwood
Azalea (evergreen & semi-evergreen)	Cotoneaster	Flowering Quince	Honeysuckle	Oak	Spirea
Aster	Crape-myrtle	Forsythia	Ivy	Olive (ornamental)	Tulip Tree
Barberry	Clematis	Fuchsia	Japanese quince	Orange, sour (ornamental)	Umbrella Pine
Begonia	Cryptomeria	Gardenia	Jasmine	Pachysandra	Viburnum
Birch	Chrysanthemum	Geranium	Juniper	Pecan (ornamental)	Vinca
Bittersweet	Cypress	Germander	Lilac	Photinia	Yew
Boxwood	Dahlia	Grape (ornamental)	Locust	Pivet	Wriggle
Camellia	Delphinium	Hawthorne	Magnolia	Pyracantha (Firethorn)	Many others

**USE INSTRUCTIONS:** Obtain cuttings from vigorous, healthy plants. Keep cuttings moist and cool such as in an ice chest. With a sharp knife, trim the cutting (2 to 8 inches long) with a diagonal cut just below a node or leaf. Dip the basal end of cutting, individually or in bunches, into the FAL 1770

solution for 3 to 5 seconds.

Note: Following dipping, place cuttings into planting medium. Depending on the species, rooting will take place in several weeks or months under a moist greenhouse environment. Transplant once the cuttings have rooted.

**Shrubs, Flowers, Groundcovers and Houseplants including, Rose, Arborvitae, Gardenias, Flowering Trees and other ornamentals**

USE INSTRUCTIONS: In bare root transplant or from containers: Use 2.0 tablespoons of FAL 1770 per 10.0 gallons of water. Apply solution to root area in transplanting hole and then cover roots with soil. After planting, repeat applications biweekly as a drench to thoroughly wet the root area using a solution consisting of 1.0 tablespoon of FAL 1770 per 10.0 gallons of water.

**Annual and Perennial Flowers (bedding plants)**

USE INSTRUCTIONS: Use 1.0 tablespoon of FAL 1770 per 10.0 gallons of water and apply to thoroughly saturate roots at time of planting. Repeat at weekly intervals until plants are well established.

**Groundcovers including, Ivy, Iceplant, Geranium, Cotoneaster, Barberry, and Ajuga**

USE INSTRUCTIONS: Use 1.0 tablespoon of FAL 1770 per 10.0 gallons of water and apply thoroughly to saturate the root area at time of planting. Repeat at weekly intervals until plants are well established.

**Houseplants (repotting and planting)**

USE INSTRUCTIONS: Use 1.0 tablespoon of FAL 1770 per 10.0 gallons of water and water thoroughly at weekly intervals to saturate the root zone until plants are well established.

**Established Plants**

USE INSTRUCTIONS: To continue new root growth, use 1.0 tablespoon of FAL 1770 per 10.0 gallons of water and water plants with solution once a month.

**USE DIRECTIONS FOR CHEMIGATION**

FAL 1770 can be applied through fixed or standing irrigation systems or through foliar applications. Foliar applications are preferred. Apply this product only through the following types of irrigation systems:

- Sprinkler including big gun, solid set or hand move irrigation systems.
- Calibrated overhead watering booms.
- Drip (or micro sprinkler) irrigation systems.
- In-Furrow irrigation systems.

Before applying this product through any type of irrigation system, perform a small-scale trial to determine if product performance and phytotoxicity results are acceptable. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. If you have any questions about calibration, contact State Extension Service specialists, equipment manufacturers or other experts.

Do not connect an irrigation system (including greenhouse systems), used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person shall shut the system down and make necessary adjustments should the need arise.

Maintain agitation in the supply tank while adding the required amount of FAL 1770, and throughout the application. FAL 1770 should be added to the supply tank at the end of water application (prior to last complete cycle in moving systems).

### **CHEMIGATION SYSTEMS CONNECTED TO PUBLIC WATER SYSTEMS**

Public water system means a system for the provision to the public of piped water for human consumption if such system has at least 15 service connections or regularly serves an average of at least 25 individuals daily at least 60 days out of the year.

Chemigation systems connected to public water systems must contain a functional, reduced pressure zone, backflow preventer (RPZ) or the functional equivalent in the water supply line upstream from the point of pesticide introduction. As an option to the RPZ, the water from the public water system should be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the flow outlet end of the fill pipe and the top or overflow rim of the reservoir tank of at least twice the inside diameter of the fill pipe.

The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump. The pesticide injection pipeline must contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops or in cases where there is no water pump, when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment.

Agitate the pesticide supply tank throughout the application of FAL 1770. Except for turfgrass, apply FAL 1770 at the rate of fluid ounces per acre at the end of the irrigation period in a sufficient amount of water to allow proper coverage of plant or crop. Fill the supply tank one-half full with water, add the appropriate amount of FAL 1770 to the tank and finish filling the tank with water.

### **DRIP/TRICKLE OR SPRINKLER CHEMIGATION**

The system must contain a functional check valve, vacuum relief valve, and low-pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.

The system must contain functional interlocking controls to automatically shut off the pesticide

injection pump when the water pump motor stops.

The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.

Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Do not apply when wind speed favors drift beyond the area intended for treatment. (This statement only applies to sprinkler chemigation.)

Agitate the pesticide supply tank throughout the application of FAL 1770. Except for turfgrass, apply FAL 1770 at the rate of 16.0 to 32.0 fluid ounces per acre at the end of the irrigation period in a sufficient amount of water to allow proper coverage of plant or crop.

Fill the supply tank one-half full with water, add the appropriate amount of FAL 1770 to the tank and finish filling the tank with water.

### **IN-FURROW CHEMIGATION**

1. Systems using a gravity flow pesticide dispensing system must meter the pesticide into the water at the head of the field and downstream of a hydraulic discontinuity such as a drop structure or weir box to decrease potential for water source contamination from backflow if water flow stops.
2. Systems utilizing a pressurized water and pesticide injection system must meet the following requirements:
  - a. The system must contain a functional check valve, vacuum relief valve, and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
  - b. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
  - c. The pesticide injection pipeline must also contain a functional, normally closed, solenoid-operated valve located on the intake side of the injection pump and connected to the system interlock to prevent fluid from being withdrawn from the supply tank when the irrigation system is either automatically or manually shut down.
  - d. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
  - e. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where pesticide distribution is adversely affected.
  - f. Systems must use a metering pump, such as a positive displacement injection pump (e.g., diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.

Maintain agitation in the supply tank while adding the required amount of FAL 1770, and throughout the application. Add FAL 1770 to the supply tank at the end of water application (prior to last complete cycle in moving systems).

The correct amount of FAL 1770 to add is calculated as the rate in fl oz per acre x the number of acres covered by the contents of the supply tank. For example, if the supply tank covers ten acres and the rate on the label for that crop is 2 fluid ounces per acre, add  $10 \times 2 = 20$  fluid ounces to the



supply tank at the beginning of the last full cycle.

## STORAGE AND DISPOSAL

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

**PESTICIDE STORAGE:** Store in the original container only. Do not store in direct sunlight. Avoid freezing temperatures. After partial use, close the container tightly. Store in a secure place that is cool and dry. Use spray and stock solutions within 24 hours. Immediate use is required if another component is added to the spray solution.

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

*[[for container size 5 gallons or less]* **CONTAINER HANDLING:** Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container  $\frac{1}{4}$  full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Then offer for recycling or reconditioning, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.]

*[[for container size greater than 5 gallons]* **CONTAINER HANDLING:** Non-refillable container. Do not reuse or refill this container. Triple rinse container (or equivalent) promptly after emptying. Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container  $\frac{1}{4}$  full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Repeat this procedure two more times. Then offer for recycling or reconditioning, if available, or puncture and dispose of in a sanitary landfill, or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.]

## WARRANTY DISCLAIMER AND LIMITATION OF LIABILITY

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