



**OFFICE OF CHEMICAL SAFETY AND POLLUTION PREVENTION**

WASHINGTON, D.C. 20460

April 15, 2024

Jolanta Ozatalay  
Fine Agrochemicals Ltd.,  
1850 Mt Diablo Blvd # 670,  
Walnut Creek, CA 94596, USA

Subject: Notification per PRN 98-10 – Notification is to add the statement that must appear under WARNING (Aviso) signal word  
Product Name: FAL 2042  
EPA Registration Number: 62097-61  
Application Date: March 12, 2024  
Case Number: 00557706

Dear Jolanta Ozatalay:

The Agency is in receipt of your Application for Pesticide Notification under Pesticide Registration Notice (PRN) 98-10 for the above referenced product. The Registration Division (RD) has conducted a review of this request for its applicability under PRN 98-10 and finds that the action requested falls within the scope of PRN 98-10.

If you have any questions, please contact Manjula Unnikrishnan at 202-566-2949 or at [unnikrishnan.manjula@epa.gov](mailto:unnikrishnan.manjula@epa.gov).

Sincerely,

A handwritten signature in black ink that reads "Manjula Unnikrishnan". Below the signature, the word "for" is written in a smaller, cursive script.

Lydia Crawford  
Acting Product Manager 24  
Fungicide and Herbicide Branch  
Registration Division (7505P)  
Office of Pesticide Programs

**NOTIFICATION**

62097-61

The applicant has certified that no changes, other than those reported to the Agency have been made to the labeling. The Agency acknowledges this notification by letter dated:

04/15/2024

**MASTER LABEL**

**FAL 2042**

[ABN: Kudos OD]

Note to Reviewer: All bracketed text [ ] is optional language.

Plant growth regulator for use on alfalfa inter-seeded in corn, apples, grass grown for seed, peanuts, [d’Anjou] pears, strawberries, sweet cherries, turf, and watercress.

**Sublabel A: Agricultural Uses**

**Sublabel B: Turf Uses**

**Active Ingredient:** Prohexadione-calcium\*\*

[calcium 3-oxido-5-oxo-4-propionylcyclohex-3-enecarboxylate] .....	25.94%
<b>Other Ingredients:</b> .....	<u>74.06%</u>
<b>Total:</b> .....	100.0%

\*\*Equivalent to 2.29 lbs. of active ingredient per gallon of product

**KEEP OUT OF REACH OF CHILDREN  
WARNING  
(AVISO)**

**Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.  
(If you do not understand the label, find someone to explain it to you in detail.)**

[See inside panel for [First Aid,] Precautionary, Storage and Disposal Statements, and Directions for Use]

[See product label for [First Aid,] Precautionary, Storage and Disposal Statements, and Directions for Use]

EPA Reg. No. 62097-61

EPA Est. No.

Net Contents:

[Manufactured for: © Fine Agrochemicals Limited, Hill End House, Whittington, Worcester, WR5 2RQ, United Kingdom]

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SUBLABEL A: Agricultural Uses

## FAL 2042

Plant growth regulator for use on [alfalfa inter-seeded in corn,] [apples,] grass grown for seed\*, peanuts\*, [d'Anjou] pears,] [strawberries\*,] [sweet cherries,] [and] [watercress\*].

\*Not for use in California.

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FIRST AID	
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"><li>• Take off contaminated clothing.</li><li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li><li>• Call a poison control center or doctor for treatment advice.</li></ul>
IF IN EYES	<ul style="list-style-type: none"><li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li></ul>

	<ul style="list-style-type: none"> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
IF SWALLOWED	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
<p>Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information on this pesticide product (including general health concerns or pesticide incidents), call the National Pesticide Information Center at 1-800-858-7378, Monday through Friday, 8:00 AM to 12:00 PM Pacific Standard Time. In the event of a medical emergency, call your poison control center at 1-800-222-1222.</p>	

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**WARNING.** Causes substantial but temporary eye injury. Causes skin irritation. Harmful if swallowed. Harmful if absorbed through skin. Do not get in eyes, on skin, or on clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**Applicators and other handlers must wear:**

- Coveralls worn over short-sleeved shirt and short pants.
- Socks and chemical-resistant footwear.
- Chemical-resistant gloves made of out of Polyethylene, Polyvinyl Chloride (PVC) >14 mils, Barrier Laminate, Butyl Rubber >14 mils, Nitrile Rubber >14 mils, Neoprene Rubber >14 mils, Natural Rubber >14 mils, Viton >14 mil.
- Wear appropriate protective eyewear such as goggles, face shield, or safety glasses.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

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

**USER SAFETY RECOMMENDATIONS**

Users should:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. If pesticide gets on skin, wash immediately with soap and water.
- 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 contaminate water when disposing of equipment wash waters or rinsate.

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### **DIRECTIONS FOR USE**

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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 application. For any requirement 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 intervals. The requirements in this box only apply to uses of this product covered by the Worker Protection Standard.

Do not enter or allow entry into treated areas during the restricted entry interval level (REI) of 12 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, plants, soil or water is:

- Coveralls
- Shoes plus socks
- Chemical resistant gloves made of any waterproof material

FAL 2042 is a plant growth regulator which inhibits the biosynthesis of gibberellins. Inhibition of gibberellin reduces vegetative growth.

- Thorough spray coverage of plant foliage is necessary for good uptake.
- The performance of FAL 2042 can be affected by many factors including: crop growth stage, environmental conditions and crop vigor due to moisture availability, fertility level, etc.
- Correct timing of application is critical. Apply FAL 2042 to actively growing trees at rates and stages of growth listed in this label.
- Add one pound of a spray grade ammonium sulfate (AMS) for every pound of FAL 2042.
- Use a standard spray adjuvant, preferably a non-ionic surfactant, to improve leaf coverage and performance consistency. Follow the manufacturer's rate directions.
- Rainfall within 1 hour of application on grass grown for seed and within 8 hours for [apples,] peanuts [, and sweet cherries] may reduce the efficacy of FAL 2042.
- Clean spray equipment thoroughly using a strong detergent or commercial sprayer cleaner according to the manufacturer's directions before and after applying FAL 2042.

### **Restrictions**

- **DO NOT** apply to crops under stress due to lack of moisture, hail damage, flooding, mechanical injury, or injury caused by other prior products, i.e., phytotoxicity.
- **DO NOT** apply this product through any type of irrigation system [, except for watercress use].
- This product cannot be used to formulate or reformulate any other pesticide product.

### **Tank Mixing Information:**

Testing has shown that FAL 2042 when used in combination with AMS and a wide range of adjuvants does not result in phytotoxicity. FAL 2042 has shown to be compatible with many commonly used fungicides and insecticides. However, not all crop varieties and cultivars have been tested with possible tank-mix combinations. Since local conditions can influence crop sensitivity, test any tank-mix combination on a small portion of the crop to be treated to ensure crop safety. It is the pesticide user's responsibility to ensure that all products are registered for the intended use. Read and follow the applicable restrictions and limitations and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

### **Mixing Order:**

1. Fill spray tank half full with clean water and begin agitation.
2. Place any product contained in a water-soluble PVA bag into the tank and make sure the bag(s) have fully dissolved before continuing.
3. Add Ammonium Sulfate (AMS).
4. Add FAL 2042.
5. Add any water dispersible formulations, i.e., water dispersible granules, wettable powders, suspension concentrates, etc.
6. Add adjuvants.
7. Add any water soluble products, i.e., soluble powders, soluble liquids, emulsifiable concentrates, etc.
8. Add remaining quantity of water and continue agitation through application.

Maintain constant agitation during application.

**Note:** If calcium or boron are tank mixed with FAL 2042, the resulting growth control may be less than favorable.

### **Mandatory Spray Drift**

#### Aerial Applications

- Do not release spray at a height greater than 10 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For all applications, applicators are required to use a Coarse or coarser droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

#### Ground Applications

- Apply with the nozzle height recommended by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- For all applications, applicators are required to use a Coarse or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

### **Spray Drift Advisories**

- THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.
- BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.

- **IMPORTANCE OF DROPLET SIZE**

An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

Controlling Droplet Size - Ground Boom

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure specified for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

Controlling Droplet Size - Aircraft

- Adjust Nozzles - Follow nozzle manufacturer's specifications for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.
- BOOM HEIGHT - Ground Boom  
Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom must remain level with the crop and have minimal bounce.
- RELEASE HEIGHT - Aircraft  
Higher release heights increase the potential for spray drift. When applying aerially to crops, do not release spray at a height greater than 10 feet above the crop canopy, unless a greater application height is necessary for pilot safety.
- SHIELDED SPRAYERS  
Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.
- ORCHARD AIRBLAST APPLICATIONS  
Sprays should be directed into the canopy. User should turn off outward pointing nozzles at row ends and when spraying outer row.
- TEMPERATURE AND HUMIDITY  
When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.
- TEMPERATURE INVERSIONS  
Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.
- WIND



Drift potential generally increases with wind speed. AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

## APPLICATION INSTRUCTIONS

### **ALFALFA INTER-SEEDED IN CORN (for use in PA and WI only):**

FAL 2042 can be used as a production management tool on alfalfa to suppress vegetative growth in the year of planting in a production program where the alfalfa is seeded between rows of corn. Applying FAL 2042 will suppress the growth of the alfalfa in the first growing season and reduce competitive vertical growth with the corn. The resulting shorter alfalfa plants will be healthier at the end of the planting season resulting in improved winter survival rate and a healthier plant coming out of winter dormant stage. Use FAL 2042 as part of the alfalfa production plan which includes an insecticide/fungicide program for alfalfa being inter-seeded in corn to prevent reduction in plant health and vigor resulting from disease and insect infestations.

This use is intended for alfalfa being established under corn grown for silage. After alfalfa seedlings reach a height of 5 to 15 inches, apply a rate of 12 to 23 fl. oz of FAL 2042 (0.21-0.41 lb. ai) per acre; the appropriate rate will depend on corn population, the alfalfa variety sown, and growing conditions. A 12 to 15.5 fl. oz rate of FAL 2042 (0.21-0.28 lb. ai) product may be used if corn populations are at or below 26,000 plants per acre. At higher corn populations, use 15.5 to 23 fl. oz of FAL 2042 (0.28-0.41 lb. ai) on alfalfa varieties that are well-adapted for inter-seeding. FAL 2042 application will limit stem growth of alfalfa seedlings and a short-term height reduction of corn may be observed.

For consistent performance on alfalfa, add one pound of spray grade ammonium sulfate (AMS) for every pound of FAL 2042. Ensure the pH of the spray tank solution is below 5.0. If pH is above 5.0, add an acidifier (e.g. citric acid) to the tank mix to reduce the pH of the spray mix to below 5.0. Based on research trial work, apply with a COC (Crop Oil Concentrate) type adjuvant at a rate of 1.25% v/v, to improve leaf coverage and performance consistency. Follow the manufacturer's rate directions.

### **Restrictions on alfalfa inter-seeded in corn:**

**DO NOT** apply more than 28 fl. oz (0.5 lb. ai/ A) of FAL 2042 per acre per year.

**DO NOT** apply more than 23 fl. oz (0.41 lb. ai/A) of FAL 2042 in any single application.

**DO NOT** make more than 2 applications of FAL 2042 in alfalfa inter-seeded into corn per year when applied at the reduced rates.

**DO NOT** use if crop (corn or alfalfa) is under drought stress.

FAL 2042 applications **MUST** be made using drop nozzles or other equipment that can direct the spray to alfalfa foliage and limit contact with corn plants.

**DO NOT** harvest corn silage for a minimum of 50 days following the last application of FAL 2042.

**DO NOT** harvest corn grain for a minimum of 65 days following the last application of FAL 2042.

**DO NOT** make applications to the corn/alfalfa after mid-July.

**DO NOT** graze livestock on alfalfa or harvest alfalfa forage or hay for at least 10 months after the last application of FAL 2042.

**Minimum Retreatment Interval (MRI):** 7 days

**ONLY** for use in Pennsylvania and Wisconsin.

### **APPLES:**

FAL 2042 can be used as a production management tool on apples to suppress vegetative growth, i.e., shoot growth reduction, resulting in a balance between canopy development and fruit production. Growth suppression with FAL 2042 generally lasts for 2-5 weeks per application. FAL 2042 does not affect vegetative growth the year following application.

Benefits resulting from the use of FAL 2042 include:

- Reduction in vegetative shoot growth
- Lessens the need or frequency for summer and/or dormant pruning
- Improved fruit color in red or bi-color apple varieties due to better light penetration into the tree canopy
- Reduced incidence and severity of fire blight of shoots

During years when both FAL 2042 and products containing gibberellins, e.g., Novagib® 10L (EPA Reg. No. 62097-7) are used, reductions in efficacy may occur in the FAL 2042 and/or gibberellin treatments.

The use of FAL 2042 may result in an increase in fruit retention. Therefore, thinning programs may need to be adjusted when using FAL 2042.

When used as directed, FAL 2042 will reduce the incidence and severity of fire blight infection of shoots and leaves, i.e., shoot blight, by reducing vegetative growth, thus decreasing host susceptibility. This decrease in susceptibility will not become effective until approximately 10 days after application. FAL 2042 does not have direct antibiotic activity against the fire blight bacteria (*Erwinia amylovora*) and is not effective for the suppression of blossom blight. For maximum reduction in fire blight susceptibility, apply FAL 2042 at least 10 days before the occurrence of weather conditions favorable for shoot and leaf infections, and used as one component of a comprehensive control strategy against fire blight.

### **Application Timings:**

**Early Timings for Reducing Shoot/Fire Blight (all approved states except California):** Early applications of FAL 2042 can be made to help reduce shoot/fire blight infestations. Research has shown that these early applications of prohexadione calcium can help reduce the incidence and severity of fire blight in shoots. FAL 2042 does not act directly on the fire blight and needs to be used as part of an overall program for controlling fire blight in orchards. For the best results, make the first application at Pink stage with subsequent applications made at 1-4 week intervals. These early applications can also reduce shoot growth in the early part of the growing season.

The amount of shoot growth reduction observed following these early applications may vary due to variety, root stock, age of trees, growing conditions and production programs used in each orchard. The rate, number of applications and application interval may vary by orchard due to the amount of fire/shoot blight pressure in the orchard and the vigor of the trees present. The applications made at this early stage would be considered part of the overall vegetative growth suppression/control program for the trees in the orchard for that production year.

**Vegetative Growth Control:** For vegetative growth control, make the first application of FAL 2042 when shoots have 1-3” of new growth. For best results, make subsequent applications at 1-4 week intervals, before or immediately following signs of shoot regrowth.

**Number of Applications:** The number of applications will vary depending on the timing of the first application, tree vigor, fruit load, pruning, variety, rootstock, and/or the management history of the orchard. For apple orchards in locations with a long growing season or on high vigor trees and/or trees with light fruit load, 3 to 5 applications per year may be required.

**Tree Vigor:** Adjust the FAL 2042 rate according to the vegetative vigor of the trees (see Table 1). Vegetative vigor can be influenced by many factors, including variety, rootstock, fruit load, cultural management and location.

**Tree Size:** Calculate the rate per acre of FAL 2042 based on tree size. Base the application rate on the volume of water needed to spray the trees to drip i.e. dilute spray or Tree Row Volume (TRV). Consult your local extension agent or consultant for advice on spray volume.

**Application Rates:** Specified rates will be based on desired treatment effect, i.e., vegetative growth control, shoot blight suppression, etc. For vegetative growth control, base FAL 2042 rates on level of tree vigor and/or length of growing season. Refer to Table 1 for directed rates per application.

For consistent performance on apples, add one pound of spray grade ammonium sulfate (AMS) for every pound of FAL 2042. Use a standard spray adjuvant, preferably a non-ionic surfactant, to improve leaf coverage and performance consistency. Follow the manufacturer’s rate directions.

**Table 1. Specified Application Rates on Apples**

Desired Treatment Effect	Rate per Acre <sup>1</sup>	Application Directions
Early Season application for reduction of fire blight incidence &	2-6 fl. oz (0.03-0.11 lb. ai)	<ul style="list-style-type: none"> <li>Apply beginning at Pink stage. Make subsequent applications at 1-4 week intervals to help suppress fire blight infestations.</li> </ul>

Desired Treatment Effect	Rate per Acre <sup>1</sup>	Application Directions
severity in shoots and shoot growth reduction <sup>3</sup>		These applications will also reduce early season shoot growth.
Growth Reduction on Medium to High Vigor Trees	18-34.5 fl. oz (0.32-0.62 lb. ai)	<ul style="list-style-type: none"> <li>• Apply at 1-3" of new shoot growth.</li> <li>• Make subsequent applications at 1-4 week intervals and before or immediately after shoot regrowth occurs.</li> </ul>
Growth Reduction on Low Vigor Trees	9-23 fl. oz (0.16-0.41 lb. ai)	<ul style="list-style-type: none"> <li>• Apply at 1-3" of new shoot growth.</li> <li>• Make subsequent applications at 1-4 week intervals and before or immediately after shoot regrowth occurs.</li> </ul>
Growth Reduction During Long Growing Season	9-23 fl. oz (0.16-0.41 lb. ai)	<ul style="list-style-type: none"> <li>• Apply at 1-3" of new shoot growth.</li> <li>• Make a second and third application at 7-14 day intervals.</li> <li>• Make subsequent applications as needed at 10-14 day intervals.</li> </ul>
To Decrease June Drop on Trees With Light Bloom	30-34.5 fl. oz (0.54-0.62 lb. ai)	<ul style="list-style-type: none"> <li>• Apply at 1-3" of new shoot growth.</li> </ul>
To Shape Tree Canopy	See footnote 2	<ul style="list-style-type: none"> <li>• Apply at 1-3" of new shoot growth.</li> <li>• Direct the spray to the portion of the tree where growth control is desired.</li> </ul>
To Reduce Fire Blight Infections of Shoot by Decreasing Vegetative Growth	18-34.5 fl. oz (0.32-0.62 lb. ai)	<ul style="list-style-type: none"> <li>• Apply at 1-3" of new shoot growth.</li> <li>• Make a second application if new shoot growth occurs.</li> </ul>

<sup>1</sup> Based on 300 gallons of dilute spray per acre.

<sup>2</sup> Apply 6-12 fl. oz of FAL 2042 (0.11-0.21 lb. ai) per 100 gallons of dilute spray until run-off.

<sup>3</sup> all approved states except California

**Ground Application:** Apply FAL 2042 to actively growing trees using calibrated ground equipment. FAL 2042 may be applied using either dilute or concentrate spray equipment as long as sufficient spray coverage is achieved. Direct spray to the portion of the tree where growth control is desired. To achieve good coverage, apply FAL 2042 in a sufficient spray volume per acre utilizing proper spray pressure, nozzles, nozzle spacing and tractor speed.

**Aerial Application (all approved states except California):** Apply FAL 2042 in a minimum of 10 gallons of spray solution per broadcast acre. Aerial applications generally only provide spray coverage in the top part of the tree canopy. Vegetative growth control will be limited to those areas of the canopy that receive spray coverage.

**Special Directions for Vegetative Growth Control on Apples Grown in Idaho, Oregon and Washington:** Apply FAL 2042 to actively growing trees according to the tree size, rates and application timings listed in Table 2. It is important to take into consideration the size and vigor of the trees when determining the spray volume and application frequency, timing and rate required to achieve vegetative growth control. Spray volumes are based on the amount of solution required to thoroughly wet the tree foliage to the point of runoff. Consult your local extension agent or consultant for advice on spray volume.

**Table 2. Specified Application Rates for Vegetative Growth Control of Apples in Idaho, Oregon or Washington.**

Apple Tree Size	Rate per Acre <sup>1</sup>	Application Directions
Small Trees (8-10 feet tall on dwarf rootstocks)	6-12 fl. oz (0.11-0.21 lb. ai)	Apply at 1-3" of new shoot growth. Make subsequent applications at 1-4 week intervals when shoots show signs of regrowth.  High vigor trees may require more frequent applications through the growing season.
Medium Trees (10-14 feet tall on semi-dwarf rootstocks)	6-17.5 fl. oz (0.11-0.31 lb. ai)	
Large Trees (greater than 14 feet tall on standard non-dwarf rootstocks)	18-23 fl. oz (0.32-0.41 lb. ai)	

<sup>1</sup>Spray volumes must be a minimum of 100 gallons per acre and increase as necessary to achieve thorough canopy coverage.

**Limitations on Apples:**

- FAL 2042 is rainfast 8 hours after application.
- The active ingredient in FAL 2042 has been shown to increase fruit cracking on apple varieties, for example, Empire and Stayman, which are known to be prone to cracking.

**Restrictions on Apples:**

- **DO NOT** apply more than 34.5 fl. oz per acre of FAL 2042 (0.62 lb. ai acre) per application.
- **DO NOT** apply more than a total of 95 fl. oz per acre of FAL 2042 (1.7 lbs. ai per acre) per acre per year.
- **DO NOT** apply more than a total of 46.5 fl. oz per acre of FAL 2042 (0.83 lb. ai acre) within any 21-day interval.

- **DO NOT** make more than 16 applications of 6 fl. oz of FAL 2042 (0.11 lb. ai) per acre per year or more than 2 applications of 34.5 fl. oz of FAL 2042 (0.62 lb. ai) per acre per year. The rate applied for individual applications may vary depending on conditions, age of trees and vigor of trees, but the overall rate applied per acre per year may still not exceed 95 fl. oz (1.7 lbs. ai per acre) of product.
- **DO NOT** retreat in less than 1 week.
- **DO NOT** apply within 45 days before harvest.
- **DO NOT** apply to crops that show injury (leaf phytotoxicity) produced by any other prior pesticide applications because this injury can be enhanced or prolonged.

**GRASS GROWN FOR SEED (all approved states except California):**

FAL 2042 can be used as a production management tool on grass grown for seed production to suppress vegetative growth i.e. shorten internode length, resulting in a lower potential for lodging. Reducing lodging can result in improved pollination, increased seed set and improved yields. FAL 2042 must be absorbed by foliage to be effective. Always use sufficient spray volume to thoroughly wet the leaves without runoff. The growth regulator effects of FAL 2042 do not occur by soil uptake. FAL 2042 does not affect vegetative growth the following year.

For consistent performance on grass grown for seed, add one pound of a spray grade ammonium sulfate (AMS) for every pound of FAL 2042. Use a standard spray adjuvant, preferably a non-ionic surfactant, to improve leaf coverage and performance consistency. Follow the manufacturer’s rate directions.

Refer to Table 3 for application rates and timings of FAL 2042 to reduce vegetative growth in grass grown for seed.

**Table 3. Application Rates and Timings for Vegetative Growth Control in Grass Grown for Seed.**

<b>Application Timing</b>	<b>Application Rate per Acre</b>
<b>Single application:</b> <ul style="list-style-type: none"> <li>• Apply from flag leaf emergence up to early heading growth stage.</li> </ul>	14-28 fl. oz (0.25-0.50 lb. ai)
<b>Split applications:</b> <ul style="list-style-type: none"> <li>• Apply from flag leaf emergence up to early heading growth stage.</li> <li>• Make a second application 7-10 days later when new growth occurs.</li> </ul>	7-13.5 fl. oz (0.13-0.24 lb. ai)

**Ground Application:** Use a minimum of 10 gallons of spray solution per broadcast acre.

**Aerial Application:** Use a minimum of 10 gallons of spray solution per acre.

**Suppression of Annual Bluegrass in Washington, Oregon, Idaho and Utah:**



FAL 2042 can be used to for the suppression of annual bluegrass in grass grown for seed production. For maximum suppression, annual bluegrass must be sprayed when in the flowering stage, and must receive thorough coverage. FAL 2042 may not be effective against some annual bluegrass biotypes.

**Limitation on Grass Grown for Seed:**

- FAL 2042 is rainfast 1 hour after application.

**Restrictions on Grass Grown for Seed:**

- **DO NOT** apply more than 28 fl. oz of FAL 2042 (0.50 lb. ai) per acre per application.
- **DO NOT** apply more than a total of 28 ounces of FAL 2042 (0.50 lb. ai) per acre, per year.
- **DO NOT** retreat in less than 1 week.
- **DO NOT** make more than 2 applications of 13.5 fl. oz of FAL 2042 (0.24 lb. ai) per acre per year or more than 1 application of 28 fl. oz of FAL 2042 (0.50 lb. ai) per acre per year.
- **DO NOT** apply within 35 days before harvest.
- **DO NOT** graze livestock for 49 days following application.
- **DO NOT** cut forage or hay for livestock feed for 49 days following application.
- Plant-back/rotation restriction: If replanting or crop rotation is necessary in fields treated with FAL 2042, **DO NOT** plant any crop other than grass grown for seed for 30 days following application.

**PEANUTS (all approved states except California):**

FAL 2042 can be used as a production management tool on peanuts to suppress vegetative growth i.e. shorten internode length, resulting in better harvest efficiency. FAL 2042 does not affect vegetative growth the year following application.

For consistent performance on peanuts, add a spray grade ammonium sulfate (AMS) to the spray tank at a rate of one pound per acre. Use a standard spray adjuvant, preferably a non-ionic surfactant, to improve leaf coverage and performance consistency. If FAL 2042 is being applied with or without a tank-mix partner that requires the use of a non-phytotoxic crop oil concentrate (COC) then, a non-phytotoxic COC can be used in place of a non-ionic surfactant.

NOTE: In trial work some leaf injury has been observed in certain tank mixes that include a Crop Oil Concentrate (COC) adjuvant. Always follow the adjuvants manufacturer's label for rate and use directions.

Apply FAL 2042 to actively growing peanut plants according to the rates directed in Table 4. Initially apply 3.6 to 7.25 fluid ounces (0.064 to 0.13 lbs. ai) per acre when greater than 50% of the peanut stems are touching the row middle i.e.85% row closure. Make a second application 14-21 days after 1<sup>st</sup> application. FAL 2042 application timing for peanut in a twin row configuration is when greater than 80% of lateral branches are touching (99% plus row closure).

FAL 2042 rates of 3.6 to 5.4 fl. oz (0.064 to 0.097 lb. ai) per acre may be used for “runner type” peanut varieties with less aggressive growth habits and/or when conditions do not favor rank growth for extended periods of time. For “runner type” peanut varieties that have aggressive/rank growth habits and/or conditions favor rank growth, the higher rate range of 5.4 to 7.25 fl. oz (0.097 to 0.13 lb. ai) per acre may be used. For “Virginia type” peanut varieties higher rates are advised with the highest rate specified when conditions favor rank plant growth.

Under conditions that are favorable to extremely rank growth and/or when weather patterns extend favorable growing conditions, a third or fourth application may be required to control excessive vegetative growth.

Growing conditions, production/fertility program and peanut variety must be considered when determining FAL 2042 rates and number of applications needed in each growing season. Proper application timing and product rates are critical for successful vegetative growth control in peanuts. Consult your local extension agent or consultant for advice on FAL 2042 rates and number of applications needed for controlling excessive vegetative growth for peanut variety and production system being used.

Crops under stress due to lack of moisture, hail damage, flooding, mechanical injury, etc. will show little response to FAL 2042.

**Table 4. Application Rates and Timings for Vegetative Growth Control in Peanuts.**

Application Timing	Application Rate per Acre
First application: <ul style="list-style-type: none"> <li>Apply when greater than 50% of lateral branches are touching in the row middles (90% plus row closure). Typically, 60-65 Days after planting.</li> </ul>	3.6–7.25 fl. oz (0.064-0.13 lb. ai)
Second application: <ul style="list-style-type: none"> <li>Make a second application at 14-21 days after the 1<sup>st</sup> application.</li> </ul>	3.6-7.25 fl. oz (0.064-0.13 lb. ai)
Additional applications: <ul style="list-style-type: none"> <li>When conditions favor extended or extremely rank growth, additional applications may be made to control growth. *</li> </ul>	3.6-7.25 fl. oz (0.064-0.13 lb. ai)

\* The total product applied per year may not exceed 21 fl. oz (0.38 lbs. ai)/acre. The last application cannot be made within 25 days before peanut harvest.

**Ground Application:** Use a minimum of 20 gallons of spray solution per broadcast acre.



**Aerial Application (all approved states except California):** Apply FAL 2042 in a minimum of 10 gallons of spray solution per broadcast acre. Under conditions where field soil is saturated, and use of ground application equipment is not possible, aerial applications may be used. Aerial applications may not provide the same level of vegetative control as observed with ground applications.

**Limitation on Peanuts:**

- FAL 2042 is rainfast 8 hours after application.

**Restrictions on Peanuts:**

- **DO NOT** apply more than 7.25 fl. oz of FAL 2042 per acre (0.13 lb. ai) per application.
- **DO NOT** apply more than a total of 21 fl. oz of FAL 2042 (0.38 lb. ai) per acre per year.
- **DO NOT** retreat in less than 1 week.
- **DO NOT** make more than 2 applications of 7.25 fl. oz/A (0.13 lb. ai/A) of FAL 2042 in less than 6 weeks.
- Following the initial application of 7.25 fl. oz per acre (0.13 lb. ai), **DO NOT** make more than 2 subsequent applications of 7.25 fl. oz of FAL 2042 per acre per year (0.13 lb. ai). More applications can be made per year of lower rates as long as the total amount of FAL 2042 applied does not exceed 21 fl. oz (0.38 lb. ai).
- **DO NOT** treat within 25 days before harvest.
- **DO NOT** graze or feed livestock treated crops.
- **DO NOT** apply to crops under stress due to lack of moisture, hail damage, flooding, herbicide injury, or mechanical injury as reduced activity may result.
- **DO NOT** apply to crops that show injury (leaf phytotoxicity or plant stunting) produced by any other prior product applications because this injury can be enhanced or prolonged.
- Plant back/rotation restriction: If replanting or crop rotation is necessary in fields treated with FAL 2042, **DO NOT** plant any crop other than peanuts for 30 days following the last application.

**PEARS - [d'Anjou] (all approved states except California):**

FAL 2042 can be used as a production management tool on [d'Anjou] pears to suppress vegetative growth, i.e., shoot growth reduction, resulting in a balance between canopy development and fruit production. Growth suppression with FAL 2042 generally lasts for 2-5 weeks per application. FAL 2042 does not affect vegetative growth the year following application.

Benefits resulting from the use of FAL 2042 include:

- Reduction in vegetative shoot growth
- Lessens the need or frequency for summer and/or dormant pruning
- Improved light penetration into the tree canopy
- Reduced incidence and severity of fire blight of shoots

During years when both FAL 2042 and products containing gibberellins, e.g. Novagib® 10L (EPA Reg. No. 62097-7), are used, reductions in efficacy may occur in the FAL 2042 and/or gibberellin treatments.

The use of FAL 2042 may result in an increase in fruit retention. Therefore, thinning programs may need to be adjusted when using FAL 2042.

When used as directed, FAL 2042 can reduce the incidence and severity of fire blight infection in [d'Anjou] pears in two ways: 1) The active ingredient in FAL 2042 can reduce latent bloom in [d'Anjou] pear. During bloom pear trees are more susceptible to infection from fire blight. By reducing the bloom period and thusly reducing the time frame for infection to occur, the chance of fire blight infection may be decreased. 2) Applications of FAL 2042 reduce vegetative growth in [d'Anjou] pears. This reduction in vegetative growth helps lessen host susceptibility. This decrease in susceptibility will not become effective until approximately 10 days after application. FAL 2042 does not have direct antibiotic activity against fire blight. For maximum reduction in fire blight susceptibility, apply FAL 2042 at least 10 days before the occurrence of weather conditions favorable for shoot and leaf infections. Use FAL 2042 as just one component of a comprehensive control strategy against fire blight.

**Application Timings:** For vegetative growth control, make the first application of FAL 2042 when shoots have 1-3" of new shoot growth. For best results, make subsequent applications at 1-4 week intervals, before or immediately following signs of shoot regrowth.

**Number of Applications:** The number of applications will vary depending on the timing of the first application, tree vigor, fruit load, pruning, variety, rootstock, and/or the management history of the orchard. For pear orchards in locations with a long growing season or on high vigor trees and/or trees with light fruit load, 3 to 5 applications per year may be required.

**Tree Vigor:** Adjust the FAL 2042 rate according to the vegetative vigor of the trees (see Table 5). Vegetative vigor can be influenced by many factors, including variety, rootstock, fruit load, cultural management and location.

**Tree Size:** Calculate the rate per acre of FAL 2042 based on tree size, volume of water needed to spray the trees to drip, i.e., dilute spray or Tree Row Volume (TRV), level of tree vigor, and/or length of growing season. Consult your local extension agent or consultant for advice on spray volume. **DO NOT** apply to weak or damaged trees or trees suffering from injury from prior pesticide applications or pest injury.

**Affect on Return Bloom:** Applications of FAL 2042 can reduce bloom in the following year/crop cycle. This must be taken into account when making applications of FAL 2042 for vegetative growth control. High daytime temperatures (90 F or higher) before and during floral initiation (bloom to approximately 6 weeks after bloom) can have a

negative effect on return bloom in pears due to increased stress on the trees. Applications of FAL 2042 made during these periods of high temperatures may amplify these effects on return bloom. Higher application rates and number of applications may also increase potential for return bloom reduction in the following crop cycle.

**Application Rates:** Specified rates will be based on desired treatment effect, i.e., vegetative growth control, shoot blight suppression, etc. Refer to **Table 5** for directed rates per application.

For consistent performance on pears, add one pound of a spray grade ammonium sulfate (AMS) for every pound of FAL 2042. Use a standard spray adjuvant, preferably a non-ionic surfactant, to improve leaf coverage and performance consistency. Follow the manufacturer’s rate directions.

**Table 5. Specified Application Rates on [d’Anjou] Pears**

<b>Application Timing</b>	<b>Rate per Acre<sup>1</sup></b>	<b>Rate per 100 Gallons of Dilute Spray<sup>2</sup></b>	<b>Restrictions</b>
<p><b>For Vegetative Growth Control:</b>            First application:</p> <ul style="list-style-type: none"> <li>Apply at 1-3” of new shoot growth</li> </ul> <p>Subsequent applications:</p> <ul style="list-style-type: none"> <li>Make any subsequent applications at 1-4 week intervals and before or immediately after shoot regrowth occurs.</li> </ul>	17.5 fl. oz (0.31 lb. ai)	6 fl. oz (0.11 lb. ai)	<p>See “Restrictions &amp; Limitations on [d’Anjou] Pears” section below”</p> <p>Applications made during bloom or within 6 weeks following bloom may reduce bloom in the following crop cycle. This can be affected by the health of the tree, pest infestations during the current season and climatic conditions between bloom in the current season and bloom in the following season. Use of lower rates and no more than 2-3 applications during bloom and for 6 weeks following bloom is recommended.</p>
<p><b>For Vegetative Growth Control and Reduced Latent Bloom (Fire Blight Management):</b></p>	30-34.5 fl. oz	10-11.5 fl. oz (0.18-0.21 lb. ai)	See “Restrictions & Limitations on

Application Timing	Rate per Acre <sup>1</sup>	Rate per 100 Gallons of Dilute Spray <sup>2</sup>	Restrictions
<ul style="list-style-type: none"> <li>Apply at 1-3" inches of new shoot growth.</li> <li>Make a second application after 21 days.</li> </ul>	(0.54-0.62 lb. ai)		<p>[d'Anjou] Pears" section below.</p> <p>Applications made during bloom or within 6 weeks following bloom may reduce bloom in the following crop cycle. This can be affected by the health of the tree, pest infestations during the current season and climatic conditions between bloom in the current season and bloom in the following season.</p>

<sup>1</sup> Based on 300 gallons of dilute spray per acre.

<sup>2</sup> Apply 6-12 fl. oz of FAL 2042 (0.11-0.21 lb. ai) per 100 gallons of dilute spray.

**Ground Application:** Apply FAL 2042 to actively growing trees using calibrated ground equipment. FAL 2042 may be applied using either dilute or concentrate spray equipment as long as sufficient spray coverage is achieved. Direct spray to the portion of the tree where growth control is desired. To achieve good coverage, apply FAL 2042 in a sufficient spray volume per acre utilizing proper spray pressure, nozzles, nozzle spacing and tractor speed.

**Aerial Application (all approved states except California):** Apply FAL 2042 in a minimum of 10 gallons of spray solution per broadcast acre. Aerial applications generally only provide spray coverage in the top part of the tree canopy. Vegetative growth control will be limited to those areas of the canopy that receive spray coverage.

**Limitation on [d'Anjou] Pears:**

- FAL 2042 is rainfast 8 hours after application.

**Restrictions on [d'Anjou] Pears:**

- DO NOT** apply more than 34.5 fl. oz per acre of FAL 2042 (0.62 lb. ai) per application.
- DO NOT** apply more than a total of 95 fl. oz of FAL 2042 (1.70 lbs. ai) per acre, per year.
- DO NOT** apply more than a total of 46.5 fl. oz per acre of FAL 2042 (0.83 lb. ai) within any 21-day interval.
- DO NOT** retreat in less than 1 week.

- **DO NOT** make more than 5 applications of 17.5 fl. oz of FAL 2042 (0.31 lb. ai) per acre per year or more than 2 applications of 34.5 fl. oz of FAL 2042 (0.62 lb. ai) per acre per year. The rate applied for individual applications may vary depending on conditions, age of trees and vigor of trees, but the overall rate applied per acre per year may still not exceed 95 fl. oz of product (1.7 lbs. ai).
- **DO NOT** apply within 45 days before harvest.
- **DO NOT** apply to crops that show injury (leaf phytotoxicity) produced by any other prior pesticide applications because this injury can be enhanced or prolonged.
- **DO NOT** apply FAL 2042 to [d'Anjou] pears through any type of irrigation system.

**STRAWBERRIES (all approved states except California):**

FAL 2042 can be used as a production management tool on strawberries to suppress vegetative growth i.e. shoot growth reduction. The growth suppression effects of FAL 2042 on strawberries will normally last for 2-5 weeks per application during the current growing season. FAL 2042 does not affect vegetative growth the year following application.

For consistent performance on strawberries, add one pound of a spray grade ammonium sulfate (AMS) for every pound of FAL 2042. Use a standard spray adjuvant, preferably a non-ionic surfactant, to improve leaf coverage and performance consistency. Follow the manufacturer's rate directions.

Apply FAL 2042 to strawberries at a rate of 1.7 fl. oz (0.03 lb. ai) per acre per application. Make the first application of FAL 2042 in the fall once a minimum of 80% of the strawberry plants have 5 fully expanded leaves and before any runner formation has begun. If additional vegetative growth control is needed, make subsequent applications at 14-21 day intervals.

**Ground Application:** Apply FAL 2042 to the foliage of actively growing strawberries using calibrated ground application equipment. FAL 2042 is taken up through the leaves of the plants so good spray coverage of the plant foliage is essential to get good uptake and consistent growth suppression. To achieve good coverage, apply FAL 2042 in a sufficient spray volume per acre utilizing proper spray pressure, nozzles, nozzle spacing and tractor speed. It is advised to apply in a minimum spray volume of 10 gallons per acre and not more than 30 gallons per acre.

**Limitation on Strawberries:**

- FAL 2042 is rainfast 8 hours after application.

**Note:** If calcium or boron are tank mixed with FAL 2042, the resulting growth control may be less than favorable.

**Restrictions on Strawberries:**

- **DO NOT** apply more than 1.7 fl. oz of FAL 2042 (0.03 lb. ai) per acre per application.
- **DO NOT** apply more than 6 fl. oz of FAL 2042 (0.11 lb. ai) per acre per year.
- **DO NOT** retreat in less than 2 weeks.

- **DO NOT** make more than 3 applications of 1.7 fl. oz of FAL 2042 (0.03 lb. ai) per acre per year.
- **DO NOT** apply within 21 days before harvest.
- **DO NOT** use FAL 2042 on strawberries grown in greenhouses.
- **DO NOT** apply this product to strawberries using air-blast or aerial spray equipment.
- **DO NOT** apply FAL 2042 to strawberries using any type of irrigation system.
- **DO NOT** apply to crops that show injury (leaf phytotoxicity) produced by any other prior pesticide applications as this injury can be enhanced or prolonged. Refer to Tank Mixing Information for additional tank mixing instructions and precautions.

**SWEET CHERRIES:**

FAL 2042 can be used as a production management tool on sweet cherries to suppress vegetative growth i.e. shoot growth reduction, which can reduce or delay the need for pruning. FAL 2042 does not affect vegetative growth the year following application.

For consistent performance on sweet cherries, add one pound of a spray grade ammonium sulfate (AMS) for every pound of FAL 2042. Use a standard spray adjuvant, preferably a non-ionic surfactant, to improve leaf coverage and performance consistency. Follow the manufacturer’s rate directions.

Apply FAL 2042 to sweet cherries according to the rates directed in **Table 6**. Make the first application of FAL 2042 in the spring when shoots have 1-3” of new growth. If additional vegetative growth control is needed, make subsequent applications at 1 to 4 week intervals, before or immediately following signs of shoot regrowth.

**Number of Applications:** The number of applications will vary depending on the timing of the first application, tree vigor, fruit load, pruning, variety, rootstock, and/or the management history of the orchard. For sweet cherry orchards in locations with a long growing season or on high vigor trees and/or trees with light fruit load, 3-5 applications per year may be required.

**Table 6. Application Rates for Vegetative Growth Control in Sweet Cherries**

<b>Tree Vigor</b>	<b>Application Rate per Acre</b>	<b>Restrictions</b>
High Vigor Trees	8-19 fl. oz (0.14-0.34 lb. ai)	<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 19 fl. oz/A (0.34 lb. ai) within any 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 35 fl. oz/A (0.63 lb. ai) per year.</li> </ul>
Medium Vigor Trees	8-12 fl. oz (CA only) (0.14-0.21 lb. ai)  6-12 fl. oz (all other states) (0.11-0.21 lb. ai)	<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply more than 12 fl. oz/A (0.21 lbs. ai) within any 14-day interval.</li> <li>• <b>DO NOT</b> apply more than 30 fl. oz/A (0.54 lb. ai) per year.</li> </ul>
Low Vigor Trees	Not applicable	<ul style="list-style-type: none"> <li>• <b>DO NOT</b> apply FAL 2042 to low vigor trees.</li> </ul>



**Ground Application:** Apply FAL 2042 to actively growing trees using calibrated ground equipment. FAL 2042 may be applied using either dilute or concentrate spray equipment as long as sufficient spray coverage is achieved. To achieve good coverage, apply FAL 2042 in a sufficient spray volume per acre utilizing proper spray pressure, nozzles, nozzle spacing and tractor speed.

**Aerial Application (all approved states except California):** Apply FAL 2042 in a minimum of 10 gallons of spray solution per broadcast acre. Aerial applications generally only provide spray coverage in the top part of the tree canopy. Vegetative growth control will be limited to those areas of the canopy that receive spray coverage.

**Post-Harvest Applications to Control Vegetative Growth in Sweet Cherries (all approved states except California):** Flushes of vegetative growth can occur in fruit trees that are harvested when temperatures and day length are still favorable for vegetative growth to occur. This can result in undesirable shoot growth and waste of resources for the trees. To reduce this growth, apply FAL 2042 to the trees after commercial harvest is complete.

Once vegetative growth begins, 1-3 applications of FAL 2042 may be applied at 1-4 week intervals. Follow the application rates described in Table 6 above based on the vigor of the trees being treated. Exclude post-harvest applications of FAL 2042 from the total ounces of product that may be applied to cherry trees in the current growing season.

**Limitation on Sweet Cherries:**

- FAL 2042 is rainfast 8 hours after application.

**Restrictions on Sweet Cherries:**

- **DO NOT** apply more than 38 fl. oz of FAL 2042 (0.68 lb. ai) per acre per year.
- **DO NOT** apply more than a total of 19 fl. oz of FAL 2042 (0.34 lb. ai) per acre in any 14-day interval.
- **DO NOT** apply more than 19 fl. oz of FAL 2042 (0.34 lb. ai) per acre per application.
- **DO NOT** retreat in less than 1 week.
- **DO NOT** make more than 5 applications of 8 fl. oz of FAL 2042 (0.14 lb. ai) per acre per year or more than 1 application of 19 fl. oz of FAL 2042 (0.34 lb. ai) per acre per year for High Vigor Trees.
- **DO NOT** make more than 5 applications of 6 fl. oz of FAL 2042 (0.11 lb. ai) per acre per year or more than 1 application of 12 fl. oz of FAL 2042 (0.21 lb. ai) per acre per year for Medium Vigor Trees.
- **DO NOT** apply within 20 days before harvest.
- **DO NOT** use FAL 2042 on tart cherries.
- **DO NOT** apply to crops that show injury (leaf phytotoxicity) produced by any other prior pesticide applications because this injury can be enhanced or prolonged. Refer to Tank Mixing Information for additional tank mixing instructions and precautions.
- **DO NOT** apply FAL 2042 on low vigor trees.

- **DO NOT** begin post-harvest applications until the cherry fruit harvest is completed in the trees to be treated.

**WATERCRESS (all approved states except California):**

FAL 2042 can be used as a production management tool on watercress to suppress vegetative growth and increase stem diameter in watercress. Following an application of FAL 2042 to watercress a reduction in growth will typically be observed after 4 days. This reduction in growth may last up to 14 days depending on growing conditions.

Apply FAL 2042 to watercress which has regrown from the plant stubble remaining following the previous harvest. Depending on the growing conditions the first application may be made from 5 to 10 days. If deemed necessary a second application of FAL 2042 may be applied. Application rates and volumes are noted in **Table 8. FAL 2042 Application Rates and Timings for Vegetative Growth Control of Watercress.**

FAL 2042 may be applied through ground or sprinkler application equipment. Application equipment must be properly designed and calibrated before making applications of FAL 2042 to watercress. To achieve desired results, apply FAL 2042 in a sufficient spray volume per acre that will provide good coverage based on the size and density of the watercress foliage. Adequate coverage of the plant foliage must be achieved for good activity but avoid over application that results in runoff.

**Ground Application:** Apply FAL 2042 to the foliage of actively growing watercress using properly calibrated ground application equipment. Ensure adequate spray coverage is applied to achieve good uptake of the spray solution.

**Sprinkler Irrigation Application:** Chemigation applications of FAL 2042 to watercress are to **only** be made through sprinkler type irrigation systems including center pivot, lateral move, solid set or hand move irrigation systems.

The chemical tank and injector system must be thoroughly cleaned before an application of FAL 2042 is made. Flush system with clean water prior to beginning the FAL 2042 application.

**Application Instructions:** Apply FAL 2042 at the rates and timings stated in this label. Chemigation applications must be made as concentrated as possible. To achieve best results apply at 0.1 inch up to 0.15 inch (2,716 to 4,073 gallons) of water per acre.

**Sprinkler Irrigation Application Use Directions:**

- Apply FAL 2042 only through sprinkler irrigation systems including center pivot, lateral move, end tow, side (wheel) roll, traveler, big gun, solid set, or hand move irrigation systems.
- Add FAL 2042 to the pesticide supply tank containing sufficient water to maintain a continuous flow by the injection equipment. In continuous moving systems, inject this product/water mixture continuously, to apply the proper labeled rate per acre for that crop. In stationary or non-continuous moving systems, inject the product/water



mixture in the last 15 to 30 minutes of each set allowing sufficient time for all of the required pesticide to be applied by all the sprinkler heads and applying the labeled rate per acre for that crop. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water.

Thorough coverage of foliage is required for good control. Good agitation must be maintained during the entire application period.

- Contact state extension service specialists, equipment manufacturers or other experts if you have questions or concerns about calibration of the system.
- 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 back-flow.
- 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.
- Functional interlocking controls must be contained in the system to automatically shut off the pesticide-injection pump when the water pump motor stops.
- In order to prevent a water pressure decrease to the point where pesticide distribution is adversely affected, the irrigation line or water pump must include a functional pressure switch that will stop the motor.
- Systems must use a metering pump, 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.
- The irrigation water may not be turned off before allowing sufficient time for the pesticide to be flushed through all lines and all nozzles. A person knowledgeable of the chemigation system and responsible for its operation, or under supervision of the responsible person, needs to shut down the system and make necessary adjustments if the need arises.

### **Specific Instructions for Public Water Systems:**

1. 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.
2. 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 may be discharged into a reservoir tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the 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.
3. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.

4. 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.
5. 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.
6. Systems must use a metering pump, 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.

**Table 8. FAL 2042 Application Rates and Timings for Vegetative Growth Control of Watercress**

FAL 2042 Rate (fl. oz/acre/application)	Application Timing
8 (0.14 lb. ai)	Apply to watercress which has regrown leaves/foilage from the plant stubble remaining following the previous harvest (5 to 10 days).
8 (0.14 lb. ai)	If deemed necessary, a second application may be made 7 days after the first application. This second application may or may not be needed depending on growing conditions.

**Limitation on Watercress:**

- FAL 2042 is rainfast 8 hours after application.

**Restrictions on Watercress:**

- **DO NOT** apply more than 15.9 fl. oz of FAL 2042 (0.28 lb. ai) per acre per year.
- **DO NOT** retreat in less than 1 week.
- **DO NOT** make more than 2 applications of 8 fl. oz of FAL 2042 (0.14 lb. ai) per acre per year.
- **DO NOT** apply more than 8 fl. oz of FAL 2042 (0.14 lb. ai) per acre per application.
- **DO NOT** apply FAL 2042 within 3 days before harvest.
- **DO NOT** use FAL 2042 on watercress grown in greenhouses.
- **DO NOT** apply to watercress crops that show injury (leaf phytotoxicity) produced by any other prior pesticide applications as this type of injury can be enhanced or prolonged. Refer to Tank Mixing Information for additional tank mixing instructions and precautions.
- **DO NOT** apply FAL 2042 to watercress with any additive, adjuvant, fertilizer, nutrient or any other pesticide product added to the spray mix. Only mix FAL 2042 with water when making applications to watercress.
- **DO NOT** apply this product through any other type of irrigation system.
- **DO NOT** exceed 1/2 inch water (13,577 gallons) per acre for watercress.

- **DO NOT** apply if wind speed favors drift beyond the intended area of the treatment.
- **DO NOT** connect an irrigation system (including greenhouse systems) used for pesticide to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.

## **STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Store in original container only. 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.

**CONTAINER HANDLING:** Nonrefillable container. Do not reuse or refill this container. Completely empty bag into application equipment. Then dispose of empty bag in a sanitary landfill or by incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

**Container Handling:** [5 gallons or less]: 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 ¼ 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 if available or reconditioning if appropriate, 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.

[greater than 5 gallons]: 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 ¼ 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 if available or reconditioning if appropriate, 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**

Fine Agrochemicals Limited ("FINE") warrants that this Product conforms to the specifications on this label. To the extent consistent with applicable law, FINE makes no

other warranties and disclaims all other warranties, express or implied, including but not limited to warranties of merchantability and fitness for a particular purpose. No agent of FINE or any other person is authorized to make any representation or warranty beyond those contained herein.

It is impossible to eliminate all risks associated with this Product. Plant injury, lack of performance, or other unintended consequences may result because of factors including abnormal weather conditions, use of the Product other than in strict accordance with this label's instructions, presence of other materials, the manner of application or other factors, all of which are beyond the control of FINE or the seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

To the extent consistent with applicable law: 1) FINE disclaims any liability whatsoever for special, incidental or consequential damages resulting from the handling or use of this Product and 2) FINE's liability under this label shall be limited to the amount of the purchase price or, at the election of FINE, the free replacement of the Product.

Produced by:  
Fine Americas Inc.  
1850 Mt Diablo Blvd,  
Suite No. 670,  
Walnut Creek,  
CA 94596, USA

[Kudos® is a registered trademark of Fine Agrochemicals, Ltd.]  
[Novagib® is a registered trademark of Fine Agrochemicals Ltd.]

SUBLABEL B: Turf uses

# FAL 2042

Plant growth regulator for use on turf.

<b>Active Ingredient:</b> Prohexadione-calcium**	
[calcium 3-oxido-5-oxo-4-propionylcyclohex-3-enecarboxylate].....	25.94%
<b>Other Ingredients:</b> .....	<u>74.06%</u>
<b>Total:</b> .....	100.0%

\*\*Equivalent to 2.29 lbs. of active ingredient per gallon of product

**KEEP OUT OF REACH OF CHILDREN**  
**WARNING**  
**(AVISO)**

**Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle.**  
**(If you do not understand the label, find someone to explain it to you in detail.)**

[See inside panel for [First Aid] Precautionary, Storage and Disposal Statements, and Directions for Use]

[See product label for [First Aid,] Precautionary, Storage and Disposal Statements, and Directions for Use]

EPA Reg. No. 62097-61

EPA Est. No.

Net Contents:

<b>FIRST AID</b>	
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
IF IN EYES	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
IF SWALLOWED	<ul style="list-style-type: none"> <li>• Call a poison control center or doctor immediately for treatment advice.</li> </ul>

- |  |  |
|--|--|
|  | <ul style="list-style-type: none"> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to by a poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul> |
|--|--|

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. For information on this pesticide product (including general health concerns or pesticide incidents), call the National Pesticide Information Center at 1-800-858-7378, Monday through Friday, 8:00 AM to 12:00 PM Pacific Standard Time. In the event of a medical emergency, call your poison control center at 1-800-222-1222.

**PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMANS AND DOMESTIC ANIMALS**

**WARNING.** Causes substantial but temporary eye injury. Causes skin irritation. Harmful if swallowed. Harmful if absorbed through skin. Do not get in eyes, on skin, or on clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

**PERSONAL PROTECTIVE EQUIPMENT (PPE)**

**Applicators and other handlers must wear:**

- Coveralls worn over short-sleeved shirt and short pants.
- Socks and chemical-resistant footwear.
- Chemical-resistant gloves made of out of Polyethylene, Polyvinyl Chloride (PVC) >14 mils, Barrier Laminate, Butyl Rubber >14 mils, Nitrile Rubber >14 mils, Neoprene Rubber >14 mils, Natural Rubber >14 mils, Viton >14 mil.
- Wear appropriate protective eyewear such as goggles, face shield, or safety glasses.

Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. Do not reuse them.

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

**USER SAFETY RECOMMENDATIONS**

Users should:

- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing. If pesticide gets on skin, wash immediately with soap and water.

- 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 contaminate water when disposing of equipment wash waters or rinsate.

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### **DIRECTIONS FOR USE**

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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 application. For any requirement, 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 intervals. The requirements in this box only apply to uses of this product covered by the Worker Protection Standard.

Do not enter or allow entry into treated areas during the restricted entry interval level (REI) of 12 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, plants, soil or water is:

- Long-sleeved shirt and long pants
- Shoes plus socks
- Chemical resistant gloves made of any waterproof material



### **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 applies when this product is used to produce agricultural plants on farms, forests, nurseries, or greenhouses. Keep unprotected persons out of treated areas until sprays have dried.

#### **TURF (all approved states except California):**

FAL 2042 can be used as a production management tool on turf to reduce vegetative growth. The active ingredient in FAL 2042, prohexadione-ca, reduces the growth of turf by inhibiting the biosynthesis of gibberellin, a natural plant hormone that regulates cell elongation. The inhibition of gibberellin slows the growth of turf which will result in reduced frequency of mowing and amounts of grass clippings in treated areas. Following an application of FAL 2042 to turf, a reduction in growth and grass clippings will typically be observed by three days.

FAL 2042 can be applied to turf that is green and actively growing. Under conditions of stress, applications need to be delayed. Apply lower rates if the turf is entering stressful growing conditions like pest pressure, high temperatures, low moisture conditions or certain cultural practices including, but not limited to, aerification or verticutting. Under certain environmental conditions, including those that may occur early in the season, transient bronzing may be observed. For information on application scheduling, rates and timings on turf for FAL 2042 see “Table 1: Application Rates & Timings for Using a Set/Calendar Spray Schedule” and “Table 2: Application Rates and Timings Using Growing Degree Days (**GDD**) to Determine Spray Timings” for FAL 2042 in Turf located below.

For consistent performance on turf, add one pound of a spray grade ammonium sulfate (AMS) for every pound of FAL 2042 applied. Use a standard spray adjuvant, preferably a non-ionic surfactant, to improve leaf coverage and performance consistency. Follow the manufacturer’s rate directions.

#### **Mandatory Spray Drift**

##### Aerial Applications

- Do not release spray at a height greater than 10 ft above the vegetative canopy, unless a greater application height is necessary for pilot safety.
- For all applications, applicators are required to use a Coarse or coarser droplet size (ASABE S572.1).
- The boom length must not exceed 65% of the wingspan for airplanes or 75% of the rotor blade diameter for helicopters.
- Applicators must use ½ swath displacement upwind at the downwind edge of the field.
- Nozzles must be oriented so the spray is directed toward the back of the aircraft.
- Do not apply when wind speeds exceed 10 miles per hour at the application site.



- Do not apply during temperature inversions.

#### Ground Applications

- Apply with the nozzle height specified by the manufacturer, but no more than 3 feet above the ground or crop canopy.
- For all applications, applicators are required to use a Coarse or coarser droplet size (ASABE S572.1).
- Do not apply when wind speeds exceed 10 miles per hour at the application site.
- Do not apply during temperature inversions.

### Spray Drift Advisories

- THE APPLICATOR IS RESPONSIBLE FOR AVOIDING OFF-SITE SPRAY DRIFT.
- BE AWARE OF NEARBY NON-TARGET SITES AND ENVIRONMENTAL CONDITIONS.
- IMPORTANCE OF DROPLET SIZE  
An effective way to reduce spray drift is to apply large droplets. Use the largest droplets that provide target pest control. While applying larger droplets will reduce spray drift, the potential for drift will be greater if applications are made improperly or under unfavorable environmental conditions.

#### Controlling Droplet Size - Ground Boom

- Volume - Increasing the spray volume so that larger droplets are produced will reduce spray drift. Use the highest practical spray volume for the application. If a greater spray volume is needed, consider using a nozzle with a higher flow rate.
- Pressure - Use the lowest spray pressure specified for the nozzle to produce the target spray volume and droplet size.
- Spray Nozzle - Use a spray nozzle that is designed for the intended application. Consider using nozzles designed to reduce drift.

#### Controlling Droplet Size - Aircraft

- Adjust Nozzles - Follow nozzle manufacturer's specifications for setting up nozzles. Generally, to reduce fine droplets, nozzles should be oriented parallel with the airflow in flight.
- BOOM HEIGHT - Ground Boom  
Use the lowest boom height that is compatible with the spray nozzles that will provide uniform coverage. For ground equipment, the boom must remain level with the turf and have minimal bounce.
- RELEASE HEIGHT - Aircraft  
Higher release heights increase the potential for spray drift. When applying aerially to target area, do not release spray at a height greater than 10 feet above the target area, unless a greater application height is necessary for pilot safety.
- SHIELDED SPRAYERS
- Shielding the boom or individual nozzles can reduce spray drift. Consider using shielded sprayers. Verify that the shields are not interfering with the uniform deposition of the spray on the target area.
- TEMPERATURE AND HUMIDITY

When making applications in hot and dry conditions, use larger droplets to reduce effects of evaporation.

- **TEMPERATURE INVERSIONS**

Drift potential is high during a temperature inversion. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. The presence of an inversion can be indicated by ground fog or by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing. Avoid applications during temperature inversions.

- **WIND**

Drift potential generally increases with wind speed. **AVOID APPLICATIONS DURING GUSTY WIND CONDITIONS.**

Applicators need to be familiar with local wind patterns and terrain that could affect spray drift.

**Ground Application:** Apply FAL 2042 to actively growing turf using calibrated application equipment. FAL 2042 is taken up through the leaves of the plants. So, good spray coverage of the plant foliage is essential to get good uptake and consistent growth suppression. To achieve good coverage, apply FAL 2042 in a sufficient spray volume utilizing proper spray pressure, nozzles, nozzle spacing and applicator speed. Apply FAL 2042 in a spray volume of 1 to 2 gallons water per 1000 sq. ft. but it can be applied in a spray volume of 0.5 to 5.0 gallons water per 1000 sq. ft. Avoid applying FAL 2042 during warm, low humidity or windy conditions. The absorption of the spray mix is improved with longer drying times.

Maintain constant agitation during mixing of the spray solution and application. **DO NOT** allow the spray tank to sit for prolonged periods without any agitation. **DO NOT** allow the spray mix to sit in the tank overnight.

**Irrigation: DO NOT** apply irrigation for 4 hours.

**[Mowing:** Mowing events can affect the efficacy of the FAL 2042 applications. After mowing, **DO NOT** make an application of FAL 2042 for at least one hour. Following an application of FAL 2042, **DO NOT** mow the treated turf for at least six hours.]

**Turf Maintenance:** Following applications of FAL 2042, maintain the areas of turf that were treated as normal with proper levels of irrigation and fertility. Implement a good pest control plan as necessary to maintain the turf in a healthy condition. If tank mixing with other product(s) precaution is advised. The user needs to test tank mixes that are unfamiliar on a small area before the treatment is applied to larger areas. Test tank mixes for compatibility before mixing a larger quantity for an application. User assumes all risk for tank mixes as it is not possible for manufacturer to test all possible tank mix combinations for compatibility, safety and effect on efficacy of the products. It is the pesticide user's responsibility to ensure that all products are registered for the intended

use. Read and follow the applicable restrictions, limitations, and directions for use on all product labels involved in tank mixing. Users must follow the most restrictive directions for use and precautionary statements of each product in the tank mixture.

### Application Timing Methods

FAL 2042 may be applied to control vegetative growth in turf by two different application timing methods in turf. The product may be applied to the turf on a set/calendar spray schedule at regular intervals or it may be applied by assessing potential for turf growth using **Growing Degree Days (GDD)** to time the applications to control turf growth. These methods allow the person(s) managing the turf to select the best and most efficient use method of FAL 2042 for their particular facility.

FAL 2042 may be applied on a regular set/calendar schedule to maintain an even turf regulation or height control. Make the first application when turf is green and actively growing. Instructions for making repeat applications are provided in Table 1 below by turf type, species and growing area (Fairways, Roughs, Greens and/or Tees).

When applying FAL 2042 using the Growing Degree Day (GDD) model, use the environmental data from the location or immediate area. Make the first application of FAL 2042 once the turf is green and actively growing. Research has shown that 280-350 GDD needs to be used for re-application timings for common golf situations to assure even turf regulation and to avoid rebound growth. Table 2 below details the application rates and timings when using GDD to determine application timings.

With either application scheduling method, delay applications to the turf when the turf is under conditions of stress. Apply lower rates if the turf is entering stressful growing conditions including pest pressure, high temperatures, low moisture conditions or certain cultural practices including, but not limited to, aerification or verticutting. Under certain environmental conditions, including those that may occur early in the season, transient bronzing may be observed.

**Table 1. Application Rates & Timings for Using a Set/Calendar Spray Schedule (All states except California)**

	FAL 2042 Applications to Slow Vertical Growth, Reduce Mowing, Improve Color & Quality			
	Fairway & Rough Areas (Application Intervals: 2-4 Weeks)		Green & Tee Areas (Application Intervals: 1-2 Weeks)	
	fl. oz/acre	fl. oz/1000 sq. ft.	fl. oz/acre	fl. oz/1000 sq. ft.
<b>Warm Season Turf*</b>				
Common and Hybrid Bermudagrass including Champion, MiniVerde, Riviera, TifEagle, TifGreen,	28 – 42 (0.5-0.75 lb. ai)	0.7 – 1.05 (0.013-0.019 lb. ai)	7.25 – 14 (0.13-0.25 lb. ai)	0.17 – 0.34 (0.003-0.006 lb. ai)

	<b>FAL 2042 Applications to Slow Vertical Growth, Reduce Mowing, Improve Color &amp; Quality</b>			
	<b>Fairway &amp; Rough Areas (Application Intervals: 2-4 Weeks)</b>		<b>Green &amp; Tee Areas (Application Intervals: 1-2 Weeks)</b>	
	<b>fl. oz/acre</b>	<b>fl. oz/1000 sq. ft.</b>	<b>fl. oz/acre</b>	<b>fl. oz/1000 sq. ft.</b>
TifSport, Tifway & 419				
Zoysiagrass cultivars including Empire, Zenith, Emerald, El Toro and Meyer  St. Augustine spp. Paspalum spp. Kikuyugrass spp.	28 – 42 (0.5-0.75 lb. ai)	0.7 – 1.05 (0.013-0.019 lb. ai)		
<b>Cool Season Turf</b>				
Bentgrass: L-93, Penn A4, Penn G2, Pennlinks, Penneagle, Southshore, Declaration, Independence and SR series	7.25 – 14 (0.13-0.25 lb. ai)	0.17 – 0.34 (0.003-0.006 lb. ai)	1.8 – 7.25 (0.03-0.13 lb. ai)	0.03 – 0.17 (0.0005-0.003 lb. ai)
Annual & Perennial Poa annua cultivars	5 – 10.87 (0.09-0.19 lb. ai)	0.125 – 0.24 (0.002-0.004 lb. ai)	1.8 – 7.25 (0.03-0.13 lb. ai)	
Kentucky bluegrass: Midnight, Odyssey	14 – 21.2 (0.25-0.38 lb. ai)	0.34 – 0.50 (0.006-0.009 lb. ai)		
Perennial ryegrass: Manhattan IV  Tall Fescues Fine Fescues	21.2 – 28 (0.38-0.50 lb. ai)	0.50 – 0.7 (0.009-0.013 lb. ai)		

\*Lower rates may be applied for color and quality enhancement. When using shorter application intervals, evaluate performance using the lower directed rates.

**Table 2. Application Rates & Timings Using Growing Degree Days (GDD) to Determine Spray Timings (All states except California)**

	FAL 2042 Applications to Slow Vertical Growth, Reduce Mowing, Improve Color & Quality			
	Fairway & Rough Areas (280-350 GDD Interval)		Green & Tee Areas (280-300 GDD Interval)	
	fl. oz/acre	fl. oz/1000 sq. ft.	fl. oz/acre	fl. oz/1000 sq. ft.
<b>Warm Season Turf*</b>				
Common and Hybrid Bermudagrass including Champion, MiniVerde, Riviera, TifEagle, TifGreen, TifSport, Tifway & 419	12 – 23 (0.21-0.41 lb. ai)	0.28 – 0.5 (0.005-0.009 lb. ai)	8 – 15.9 (0.14-0.28 lb. ai)	0.18 – 0.35 (0.003-0.006 lb. ai)
Zoysiagrass cultivars including Empire, Zenith, Emerald, El Toro and Meyer  St. Augustine spp. Paspalum spp. Kikuyugrass spp.	12 – 23 (0.21-0.41 lb. ai)	0.28 – 0.5 (0.005-0.009 lb. ai)		
<b>Cool Season Turf</b>				
Bentgrass: L-93, Penn A4, Penn G2, Pennlinks, Penneagle, Southshore, Declaration, Independence and SR series	6 – 12 (0.11-0.21 lb. ai)	0.14 – 0.28 (0.003-0.005 lb. ai)	2 – 8 (0.04-0.14 lb. ai)	0.03 – 0.18 (0.0005-0.003 lb. ai)
Annual & Perennial Poa annua cultivars	4 – 8 (0.07-0.14 lb. ai)	0.08 – 0.18 (0.001-0.003 lb. ai)	1.7 – 8 (0.03-0.14 lb. ai)	
Kentucky bluegrass: Midnight, Odyssey	8 – 15.5 (0.14-0.28 lb. ai)	0.18 – 0.35 (0.003-0.006 lb. ai)		
Perennial ryegrass: Manhattan IV  Tall Fescues Fine Fescues	8 – 15.5 (0.14-0.28 lb. ai)	0.18 – 0.35 (0.003-0.006 lb. ai)		

\*Lower rates may be applied for color and quality enhancement. When using shorter application intervals, evaluate performance using the lower directed rates.

**Table 3. Applications for Overseeding Enhancement in Bermudagrass (All states except California)**

Turf Type	fl. oz/acre	Application Interval	Notes
Common and Hybrid Bermudagrass including Champion, MiniVerde, Riviera, TifEagle, TifGreen, TifSport, Tifway, Yukon & 419	1 – 1.75 (0.02-0.03 lb. ai)	Apply one application of FAL 2042 3-5 days prior to seeding. Any preparation of the site including verticutting, spiking or scalping needs to be done 1-2 days after the application.	FAL 2042 is a foliar-active product. Therefore, germination and seedling growth of the over-seeding are not affected when used as directed. Use good cultural practices, including fertilization and irrigation, in conjunction with FAL 2042 to optimize results. Some temporary yellowing of the bermudagrass turf may be observed, however, this will not affect the over-seeding.

**Table 4. Applications for Reduction of *Poa annua* in Bermudagrass Overseeding (All states except California).**

Turf Type	fl. oz/acre	Application Interval
Common and Hybrid Bermudagrass (including Tifway 419, TifSport & Riviera)	0.90 – 1.75 (0.02-0.03 lb. ai)	Reapply FAL 2042 at 3-4 week intervals during periods of active <i>Poa annua</i> growth.

**Table 5. For Growth Management and Color and Quality Enhancement on Turf Grown for Sod (All states except California)**

Turf Type	fl. oz/acre	Application Interval	Application Interval
Warm Season Turf including, but not limited to, Bermudagrass, St. Augustine, etc.	12 – 23 (0.21-0.41 lb. ai)	2-4 week interval	Since turfgrass response can be influenced by a variety of factors, it is advised that the initial evaluation of FAL 2042 must be limited to a small area. The acceptability of the turfgrass response must be determined using a lower use rate and shorter interval before gradually moving to higher rates and longer intervals
Cool Season Turf including, but not limited to, Kentucky bluegrass, perennial ryegrass, fescues	8 – 15.5 (0.14-0.28 lb. ai)	2-4 week interval	

**Table 6: Application Rates Turf Uses in California**

	FAL 2042 Applications to Slow Vertical Growth	
	Fairway & Rough Areas	
	fl. oz/acre	fl. oz/1000 sq. ft.
<b>Warm Season Turf</b>		
Common and Hybrid Bermudagrass	[12][23] [12 – 23] [(0.21 lb. ai)] [(0.41 lb. ai)] [(0.21-0.41 lb. ai)]	[0.275] [0.50][0.275 – 0.50] [(0.005 lb. ai)] [(0.009 lb. ai)] [(0.005-0.009 lb. ai)]
Kikuyugrass spp.	[12][23] [12 – 23] [(0.21 lb. ai)] [(0.41 lb. ai)]	0.67 – 1.0

	FAL 2042 Applications to Slow Vertical Growth	
	Fairway & Rough Areas	
	fl. oz/acre	fl. oz/1000 sq. ft.
	[(0.21-0.41 lb. ai)]	[(0.005 lb. ai)] [(0.009 lb. ai)] [(0.005-0.009 lb. ai)]

**Limitation on Turf:**

- FAL 2042 is rainfast 1 hour after application.

**Note:** If calcium or boron are tank mixed with FAL 2042, the resulting growth control may be less than favorable.

**Restrictions on Turf:**

- **DO NOT** apply more than 1088 fl. oz of FAL 2042 (19.47 lbs. ai) per acre per year.
- **DO NOT** apply more than 25.2 fl. oz of FAL 2042 (0.45 lb. ai) per 1000 sq. ft. per year.
- **DO NOT** apply more than 1 fl. oz (0.02 lb. ai) per 1000 sq. ft. or 43.6 fl. oz per acre per 1000 sq. ft. or 0.75 lbs. ai per acre of FAL 2042 in a single application.
- **DO NOT** retreat in less than 1 week.
- **DO NOT** make more than 52 applications per year when applied at lower rate.
- **DO NOT** apply FAL 2042 to turf that has been sodded or sprigged until it has knitted down and rooted firmly.
- **DO NOT** apply to turf growing in conditions that are not ideal for good growth. Also, **DO NOT** apply to turf that shows injury (leaf phytotoxicity) produced by any other prior pesticide applications as this type of injury can be enhanced or prolonged. Refer to Tank Mixing Information for additional tank mixing instructions and precautions.
- **DO NOT** graze treated areas or feed clippings previously treated with FAL 2042 to livestock.
- **DO NOT** apply FAL 2042 to turf using any type of irrigation/chemigation system.
- **DO NOT** use on sod farms in Arizona.

**STORAGE AND DISPOSAL**

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

**PESTICIDE STORAGE:** Store in original container only. 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.

**Container Handling:** [5 gallons or less]: 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 ¼ 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 if available or reconditioning if appropriate, 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.

[greater than 5 gallons]: 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 ¼ 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 if available or reconditioning if appropriate, or by incineration, or, if allowed by State and local authorities, by burning. If burned, stay out of smoke.

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It is impossible to eliminate all risks associated with this Product. Plant injury, lack of performance, or other unintended consequences may result because of factors including abnormal weather conditions, use of the Product other than in strict accordance with this label's instructions, presence of other materials, the manner of application or other factors, all of which are beyond the control of FINE or the seller. To the extent consistent with applicable law, all such risks shall be assumed by the Buyer.

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1850 Mt Diablo Blvd,  
Suite No. 670,  
Walnut Creek,  
CA 94596, USA