SIPCAM AGRO USA, INC.

Torrent™ 2F

SYSTEMIC AND FOLIAR INSECT CONTROL

ACTIVE INGREDIENT:

Imidacloprid: 1-[(6-Chloro-3-pyridinyl)methyl]-*N*-nitro-2-imidazolidinimine	21.4%
OTHER INGREDIENTS:	78.6%
TOTAL:	100.0%

Contains 2 pounds of imidacloprid per gallon.

KEEP OUT OF REACH OF CHILDREN

CAUTION

PRECAUCION AL USUARIO: Si usted no puede leer o entender inglés, no use este producto hasta que la etiqueta le haya sido explicada ampliamente.
(TO THE USER: If you cannot read or understand English, do not use this product until the label has been fully explained to you.)

FIRST AID	
If swallowed:	• Call a poison control center or doctor immediately for treatment advice. • Have person sip a glass of water if able to swallow. • Do not induce vomiting unless told to do so by the poison control center or doctor. • Do not give anything by mouth to an unconscious person.
If inhaled:	• Move person to fresh air. • If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.
If on skin or clothing:	• Take off contaminated clothing. • Rinse skin immediately with plenty of water for 15-20 minutes. • Call a poison control center or doctor for treatment advice.
If in eyes:	• Hold eye open and rinse slowly and gently with water for 15-20 minutes. • Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. • Call a poison control center or doctor for treatment advice.

HOT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.

NOTE TO PHYSICIAN

No specific antidote is available. Treat the patient symptomatically.

Formulated in the United States, with U.S. and imported ingredients.

EPA Reg. No. 60063-31
EPA Est. No. 67545-AZ-001

Manufactured for:
SIPCAM AGRO USA, INC
300 Colonial Center Parkway, Suite 230
Roswell, GA 30076 USA

NET CONTENTS:
1 gallon

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS
CAUTION

Harmful if swallowed, inhaled, or absorbed through skin. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling. Remove contaminated clothing and wash before reuse. Keep children or pets away from treated area until dry.

PERSONAL PROTECTIVE EQUIPMENT (PPE):

Applicators and other handlers must wear:

- Long-sleeved shirt and long pants
- Chemical-resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC) or viton
- Shoes plus socks
- Protective eyewear when working in a non-ventilated space.

Follow manufacturer's instructions for cleaning/maintaining PPE. If instructions for washables do not exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

ENGINEERING CONTROLS STATEMENTS

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.

USER SAFETY RECOMMENDATIONS

Users should:

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

ENVIRONMENTAL HAZARDS

This product is highly toxic to aquatic invertebrates. Do not apply directly to water, or 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 washwaters.

This product is highly toxic to bees exposed to direct treatment or residues on the foliage of blooming crops or weeds. Do not apply this product or allow it to drift to blooming crops or weeds if bees are visiting the treatment area.

This product is toxic to wildlife.

This chemical demonstrates the properties and characteristics associated with chemicals detected in groundwater. The use of this chemical in areas where soils are permeable, particularly where the water table is shallow, may result in groundwater contamination.

DIRECTIONS FOR USE

It is a violation of Federal law to use this product in a manner inconsistent with its labeling. Do not apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the agency responsible for pesticide regulation.

Do NOT formulate this product into other end-use products

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 this label about personal protective equipment (PPE) and restricted-entry interval. The requirements in this box only apply to uses of this product that are covered by the Worker Protection Standard.

Do not enter or allow worker entry into treated areas during the restricted entry interval (REI) of 12 hours.

Exception: If the product is soil-injected or soil-incorporated, the Worker Protection Standard, under certain circumstances, allows workers to enter the treated area if there will be no contact with anything that has been treated.

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

- Coveralls
- Chemical-resistant gloves made of any waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinylchloride (PVC) or viton
- Shoes plus socks

OBSERVE THE FOLLOWING PRECAUTIONS WHEN MIXING AND APPLYING IN THE VICINITY OF AQUATIC AREAS SUCH AS LAKES, RESERVOIRS, RIVERS, PERMANENT STREAMS, MARSHES OR NATURAL PONDS, ESTUARIES AND COMMERCIAL FISH PONDS.

RUNOFF MANAGEMENT

Do not cultivate within 10 feet of the aquatic areas to allow growth of vegetative filter strip. When used on erodible soils, best management practices for minimizing runoff should be employed. Consult your local Natural Resources Conservation Service for recommendations in your use area.

ENDANGERED SPECIES NOTICE

Under the Endangered Species Act, it is a Federal Offense to use any pesticide in a manner that results in the death of a member of an endangered species. Consult your local county bulletin, County Extension Agent, or Pesticide State Lead Agency for information concerning endangered species in your area.

RESISTANCE MANAGEMENT

Some insects are known to develop resistance to insecticides after repeated use. As with any insecticide, the use of this product should conform to resistance management strategies established for the use area.

TORRENT 2F contains a Group 4A insecticide called imidacloprid. Insect biotypes with acquired or inherent tolerance to group 4A products may eventually dominate the insect population if Group 4A products are used repeatedly as the predominant method of control for targeted species. This may eventually result in partial or total loss of control of those species by TORRENT 2F and to other Group 4A products.

The active ingredient in TORRENT 2F is a member of the neonicotinoid chemical group. Avoid using a block of more than three consecutive applications of TORRENT 2F and/or other Group 4A products having the same or similar mode of action. Following a neonicotinoid block of treatments, Sipcam Agro USA, Inc. strongly encourages the rotation to a block of applications with effective products of a different mode before using additional applications of neonicotinoid products. Using a block rotation or windowed approach, along with other IPM practices, is considered an effective use strategy for preventing or delaying an insect pest's ability to develop resistance to this class of chemistry.

Foliar applications of TORRENT 2F or other Group 4A products from the neonicotinoid chemical class should not be used on crops previously treated with long-residual, soil-applied products from the neonicotinoid chemical class.

Other Group 4A, neonicotinoid products used as foliar treatments include: Actara®, Assail®, Calypso®, Centric®, Intruder™, Leverage® and Trimax™. Other 4A Group, neonicotinoid products used as soil treatment include: Admire® and Platinum®.

Contact your local extension specialist, certified crop advisor and/or product manufacturer for additional insect resistance management recommendations. Also, for more information on Insect Resistance Management (IRM), visit the Insecticide Resistance Action Committee (IRAC) on the web at http://irac-online.org/.

GENERAL INFORMATION

Thorough uniform coverage is necessary to achieve optimal control. A spray adjuvant may be used to improve coverage. TORRENT 2F may not knockdown established and heavy insect populations. Two applications may be required to achieve control; retreat if needed and as directed on this label. TORRENT 2F may be tank mixed with other insecticides as recommended for knockdown of pests or for improved control of other pests.

Applying TORRENT 2F to crops grown for production of true seed intended for private or commercial planting may be allowed under State specific supplemental labeling *but is generally not recommended*. As with any insecticide, care should be taken to minimize exposure of TORRENT 2F to honey bees and other pollinators. Use of TORRENT 2F on crops requiring bee pollination should be avoided during bloom and a minimum of 10 days prior to bloom. Additional information on TORRENT 2F uses for these crops and other questions may be obtained from the Cooperative Extension Service, PCA's, consultants or local Sipcam Agro USA representative.

Rotational Crops

As soon as practical following the last application, treated areas may be replanted with any crop specified on an imidacloprid label, or any crop for which a tolerance exists for the active ingredient. For crops not listed on an imidacloprid label, or for crops for which no tolerances for the active ingredient have been established, a 12-month plant-back interval should be observed. NOTE: Cover crops for soil building or erosion control may be planted at any time, but do not graze or harvest for food or feed.

Immediate Plant-back:

All crops on this label plus the following crops not on this label: barley, canola, corn (field, sweet and pop), rapeseed, sorghum, sugar beet and wheat.

30-Day Plant-back:

Cereals (including buckwheat, millet, oats, rice, rye and triticale), soybeans and safflower

12- Month Plant-back:

All other crops

MIXING INSTRUCTIONS

To prepare the application mixture, add a portion of the required amount of water to the spray tank, begin agitation, and add the TORRENT 2F. Complete filling tank with the balance of water needed. Be sure to maintain agitation during both mixing and application.

TORRENT 2F may also be used with other pesticides and/or fertilizer solutions; refer to the Compatibility Note below. When tank mixtures of TORRENT 2F and other pesticides are involved, prepare the tank mixture as recommended above and follow the suggested Mixing Order below.

Mixing Order

When pesticide mixtures are needed, add wettable powders first, TORRENT 2F or other flowables second, and emulsifiable concentrates last. Ensure good agitation as each component is added and do not add an additional component until the previous is thoroughly mixed. A fertilizer / pesticide compatibility agent may be needed if a fertilizer solution is to be added to the mixture. Be sure to maintain constant agitation during both mixing and application to ensure uniformity of spray mixture.

Compatibility Note

Before adding TORRENT 2F to the spray or mix tank, the compatibility of the intended tank mixture should be checked using the following test:

1) Add proportionate amount of each ingredient in the appropriate order to a pint or a quart jar;

2) Cap and shake for 5 minutes;

3) Let set for 5 minutes.

Poor mixing or formation of precipitates that do not readily re-disperse indicates an incompatible mixture that should not be used. For further information, contact your local Sipcam Agro USA, LLC representative.

CONVERSION CHART FOR LINEAR APPLICATIONS ONLY (fl. oz / 1000 row-feet)

Specified Rate (fl. oz. / Acre)	Average Row Spacing (in inches)							
	10	15	20	25	30	35	40	45
10	0.19	0.29	0.38	0.48	0.57	0.67	0.76	0.86
12	0.23	0.34	0.46	0.57	0.69	0.80	0.92	1.03
14	0.27	0.40	0.54	0.67	0.80	0.94	1.07	1.21
16	0.31	0.46	0.61	0.77	0.92	1.07	1.22	1.38
18	0.34	0.52	0.69	0.86	1.03	1.21	1.38	1.55
20	0.38	0.57	0.76	0.96	1.15	1.34	1.53	1.72
22	0.42	0.63	0.84	1.05	1.26	1.47	1.68	1.89
24	0.46	0.69	0.92	1.15	1.38	1.61	1.84	2.07
26	0.50	0.75	0.99	1.24	1.49	1.74	1.99	2.24
28	0.54	0.80	1.07	1.34	1.61	1.87	2.14	2.41

(continued)

CONVERSION CHART FOR LINEAR APPLICATIONS ONLY *(continued)* (fl. oz / 1000 row-feet)								
Specified Rate (fl. oz. / Acre)	**Average Row Spacing (in inches)**							
	10	**15**	**20**	**25**	**30**	**35**	**40**	**45**
30	0.57	0.86	1.15	1.43	1.72	2.01	2.29	2.58
32	0.61	0.92	1.22	1.52	1.84	2.14	2.45	2.75

IMPORTANT: The rate of TORRENT 2F applied directly effects the length of control as well as the degree of control or effect. Because of this, Sipcam Agro USA offers no warranty when TORRENT 2F is used at rates below 0.7 fl. oz. / 1000 row–feet (the Row-Spacing / Rate combinations that are shaded). When infestations may occur later in crop development or where pest pressure is continuous, use the higher labeled rates.

APPLICATION INSTRUCTIONS

TORRENT 2F should be applied as a directed or broadcast foliar spray using properly calibrated ground application equipment as allowed in the specific recommended application section. For optimum insecticidal efficacy, thorough coverage of all target foliage *without runoff* is necessary. To obtain thorough coverage use adequate spray volumes, properly calibrated application equipment and a spray adjuvant if necessary. Failure to provide adequate coverage and retention of TORRENT 2F on leaves and fruit, if present, may result in loss of insect control or delay in onset of activity. Minimum recommended spray volumes unless otherwise specified on crop specific recommended application sections are 10 gallons/acre by ground application. TORRENT 2F may also be applied by chemigation (see APPLICATION THROUGH IRRIGATION SYSTEMS (CHEMIGATION) section below) if allowed in the specific recommended application section.

SPRAY DRIFT MANAGEMENT

The interaction of many equipment and weather related factors determine the potential for spray drift. The applicator is responsible for considering all of these factors when making application decisions. Avoiding spray drift is the responsibility of the applicator.

Mixing and Loading Requirements

To avoid potential contamination of groundwater, the use of a properly designed and maintained containment pad for mixing and loading of any pesticide into application equipment is recommended. If containment pad is not used, maintain a minimum distance of 25 feet between mixing and loading areas and potential surface to groundwater conduits such as field sumps, uncased well heads, sinkholes, or field drains.

Importance of Droplet Size

An important factor influencing drift is droplet size. Small droplets (<150-200 microns) drift to a greater extent than large droplets. Within typical equipment specifications, applications should be made to deliver the largest droplet spectrum that provides sufficient control and coverage. Formation of very small droplets may be minimized by appropriate nozzle selection.

Wind Speed Restrictions

Drift potential increases at wind speeds of less than 3 mph (due to inversion potential) or more than 10 mph. However, many factors, including droplet size, canopy and equipment specifications determine drift potential at any

given wind speed. Do not apply when winds are greater than 15 mph and avoid gusty and windless conditions. Risk of exposure to sensitive aquatic areas can be reduced by avoiding applications when wind direction is toward the aquatic area.

Restrictions During Temperature Inversions

Because the potential for spray drift is high during temperature inversions, do NOT make ground applications during temperature inversions. Temperature inversions restrict vertical air mixing, which causes small suspended droplets to remain close to the ground and move laterally in a concentrated cloud. Temperature inversions are characterized by increasing temperature with altitude and are common on nights with limited cloud cover and light to no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however if fog is not present, inversions can also be identified by the movement of smoke from a ground source. 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 mixing.

No-Spray Zone Requirements for Foliar Applications

Do not apply by ground within 25 feet of lakes; reservoirs; rivers; permanent streams, marshes or natural ponds; estuaries and commercial fish farm ponds.

APPLICATION THROUGH IRRIGATION SYSTEMS (CHEMIGATION)

TORRENT 2F may be applied at rates recommended on this label either alone or in tank mixture with other pesticides and chemicals registered for application through irrigation systems. The normal dilution ratio is 1:100 to 1:200, depending on the system. Always meter the product into the irrigation water during the first part of the irrigation cycle. The product may be mixed separately prior to injection. Agitation may be necessary if the mixture is allowed to stand more than 24 hours.

- Do NOT connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water systems are in place.
- Apply TORRENT 2F only through micro-irrigation (individual spaghetti tube), drip irrigation, overhead irrigation, and ebb and flood or hand-held or motorized calibrated irrigation equipment and only as recommended in the specific directions. ***Do not apply this product through any other type of irrigation system***. Crop injury or lack of effectiveness can result from non-uniform distribution of treated water.
- Be sure to remove scale, pesticide residue and other foreign matter from the tank and entire irrigation system prior to application.
- A person knowledgeable of the chemigation system and responsible for its operation, or a person who is under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.
- If you have any questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

SAFETY DEVICES FOR IRRIGATION SYSTEMS CONNECTED TO PUBLIC WATER SUPPLIES:

If the source of water for your irrigation system is a public water supply, follow the instructions below.

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, water from the public water system should be discharged into a reservoir

tank prior to pesticide introduction. There shall be a complete physical break (air gap) between the 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, such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

SAFETY DEVICES FOR IRRIGATION SYSTEMS NOT CONNECTED TO A PUBLIC WATER SUPPLY:

1. The system must contain a functional check valve, vacuum relief valve and low pressure drain appropriately located on the irrigation pipeline to prevent water source contamination from backflow.
2. The pesticide injection pipeline must contain a functional, automatic, quick-closing check valve to prevent the flow of fluid back toward the injection pump.
3. 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.
4. The system must contain functional interlocking controls to automatically shut off the pesticide injection pump when the water pump motor stops.
5. The irrigation line or water pump must include a functional pressure switch which will stop the water pump motor when the water pressure decreases to the point where the pesticide distribution is adversely affected.
6. Systems must use a metering pump such as a positive displacement injection pump (e.g. diaphragm pump) effectively designed and constructed of materials that are compatible with pesticides and capable of being fitted with a system interlock.
7. Do not apply when wind speed favors drift beyond the area intended for treatment.

Water Volume

TORRENT 2F chemigation application should be made as concentrated as possible. Retention of TORRENT 2F on target site of insect infestation is necessary for optimum activity. Chemigation of TORRENT 2F in water volumes exceeding 0.10 inches/acre are not recommended.

Uniform Water Distribution and System Calibration

The irrigation system must provide uniform distribution of treated water. Crop injury, lack of effectiveness, or illegal pesticide residues in the crop can result from non-uniform distribution of treated water. The system must be calibrated to uniformly apply the rates specified. If you have questions about calibration, you should contact State Extension Service specialists, equipment manufacturers or other experts.

Chemigation Monitoring

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

Drift

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

FIELD CROPS

COTTON

- Do NOT apply more than 0.5 lbs. of active ingredient per acre per season of TORRENT 2F, Provado®, Trimax® or Leverage®, including seed treatment as Gaucho®, soil and foliar uses.
- Do NOT graze treated fields after any application of TORRENT 2F.
- Maximum TORRENT 2F allowed per season: 21.1 fluid ounces/Acre (0.33 lb. AI/A)
- Maximum number of TORRENT 2F applications per crop season: 6

Pest	Fluid ounces per 1000 Row-Feet	Fluid ounces per Acre	Specific Instructions
Cotton aphids Plant bugs Thrips Whiteflies	1.33	17.0 – 21.1 (depending on row-spacing)	Apply the specified amount of TORRENT 2F using one of the following methods: • As an in-furrow spray directed on or below the seed during planting; • As a narrow band directly below the eventual seed row in a bedding operation no more than 7 days before planting; • As a chemigation application directly into the root zone using low-pressure trickle or drip irrigation.

POTATO

• Maximum TORRENT 2F allowed per crop season: 20.0 fluid ounces/Acre (0.31 lb. AI/A)

Pest	Fluid ounces per 1000 Row-Feet	Fluid ounces per Acre	Specific Instructions
Aphids Colorado potato beetle Flea beetles Leafhoppers Potato psyllid Wireworms† Symptoms of: Potato leaf roll virus† Potato yellows† Net necrosis†	0.9 – 1.3	13.0 – 20.0	Apply the specified amount of TORRENT 2F using one of the following methods: • As an in-furrow spray directed on the seed pieces or seed potatoes during planting; • As a subsurface side-dress on both sides of the row covered with 3 or more inches of soil; • At ground cracking as a narrow band spray directly over the row and covered with 3 or more inches of soil during hilling; • As a narrow band directly below the eventual seed row in a bedding operation no more than 7 days before planting. For best control or suppression, TORRENT 2F must be applied below the soil surface and in contact with the seed piece or within the root-zone. For potatoes in highly permeable soils with a shallow water table, at-plant applications may be made in a 2 – 4 inch band (width of the planter shoe opening) and completely covered.
† Suppression only			

POTATO (SEED-PIECE TREATMENT)

NOT PERMITTED IN CALIFORNIA unless otherwise directed by supplemental labeling

- Do NOT use treated seed-pieces for food, feed or fodder.
- Do NOT make subsequent applications of TORRENT 2F (in-furrow), Gaucho®, Leverage®, or Provado® following an TORRENT 2F seed-piece treatment.
- Apply only in areas that are equipped to remove spray mist or dust or with adequate ventilation.
- Maximum TORRENT 2F allowed per crop season: 20.0 fluid ounces/Acre (0.31 lb. AI/A)

<table>
<tr><th>Pest</th><th>Fluid ounces per 1000 Row-Feet</th><th>Fluid ounces per Acre‡</th><th>Specific Instructions</th></tr>
<tr><td>Aphids
Colorado potato beetle
Flea beetles
Leafhoppers
Potato psyllid
Wireworms</td><td>0.4 – 0.8</td><td>8.0 – 16.0</td><td rowspan="2">Dilute the TORRENT 2F with 3 parts water (or less) to 1 part TORRENT 2F.
Apply the diluted spray using a shielded spray system, agitating or stirring the spray solution as needed.
After application of TORRENT 2F, fungicidal or inert absorbent dusts may be applied.
Plant the seed-pieces as soon as possible after treatment in order to avoid prolonged exposure of the seed-pieces to sunlight.</td></tr>
<tr><td>Symptoms of:
Potato leaf roll virus†
Potato yellows†
Net necrosis†</td><td>0.8</td><td>16.0</td></tr>
<tr><td colspan="4">† Suppression only
‡ Based on a seeding rate of 2000 lbs. / acre</td></tr>
</table>

TOBACCO

- Adverse growing conditions may result in delayed control by causing a delay in TORRENT 2F uptake by the plant.
- Pre-Harvest interval (PHI): 14 days
- Maximum TORRENT 2F allowed per crop season: 32.0 fluid ounces/Acre (0.50 lb. AI/A)

Pest	Fluid ounces per 1000 Plants (as seedling tray drench)	Fluid ounces per 1000 Plants (in-furrow or transplant water)	Specific Instructions
Aphids Flea beetles	1.0	1.4	Apply the specified amount of TORRENT 2F using one of the following methods: • As an in-furrow spray or transplant water drench during setting; • To seedlings in trays (tray drench) as a uniform broadcast foliar spray no more than 7 days prior to transplant followed immediately by overhead irrigation to wash the TORRENT 2F from the foliage into the potting media (NOTE: Failure to wash TORRENT 2F from the foliage may result in reduced control); • As a chemigation application directly into the root zone using low-pressure trickle, drip, micro-sprinkler or equivalent irrigation equipment. Properly made tray-drench applications have been shown to provide best results. However, the specified rate of TORRENT 2F may be applied as a combination of tray-drench in the greenhouse and / or transplant-water drench in the field.
Mole crickets Whiteflies Wireworms Cutworms† Symptoms of: Tomato spotted wilt virus†	1.4 – 2.8	1.8 – 2.8	
† Suppression only			

VEGETABLE and SMALL FRUIT CROPS

CURCURBIT VEGETABLES

NOT FOR USE ON CROPS GROWN FOR SEED unless allowed by state-specific supplemental labeling

Chayote (fruit), Chinese waxgourd (Chinese preserving melon), Citron melon, Cuban pumpkin, Cucumber, Gherkin, Gourd (edible, including hyotan, cucuzza, hechima and Chinese okra), Momordica spp. (including balsam apple, balsam pear, bitter melon and Chinese cucumber), Muskmelon (hybrids and/or cultivars of Cucumis melo including true cantaloupe, cantaloupe, casaba, Crenshaw melon, golden pershaw melon, honeydew melon, honey balls, mango melon, Persian melon, pineapple melon, Santa Claus melon, snake melon and Winter melon), Pumpkin, Squash (including summer squash types such as butternut squash, calabaza, crookneck squash, Hubbard squash, scallop squash, straightneck squash, vegetable marrow and zucchini and winter squash types such as acorn squash and spaghetti squash), and Watermelon (including hybrids and/or varieties of Citrullus lanatus)

FIELD APPLICATIONS

- Pre-Harvest Interval (PHI): 21 days
- Maximum TORRENT 2F allowed per crop season: 24.0 fluid ounces/Acre (0.38 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Aphids Bacterial Wilt† (as vectored by various cucumber beetles) Cucumber beetle Leafhoppers Leaf slivering† (from whitefly feeding) Thrips (foliage-feeding only) Whiteflies	16.0 – 24.0	Apply the specified amount of TORRENT 2F using one of the following methods: • As a chemigation application into the root-zone using low-pressure drip, trickle, micro-sprinkler or equivalent equipment; • As an in-furrow spray directed on or below the seed; • As a narrow surface band spray (2" or less in width) over the seed-line during planting. Within 24 hours the application must be incorporated to a depth of 1 – 1½" and sufficiently irrigated. • As a narrow band spray directly below the eventual seed row as part of a bedding operation no more than 14 days before planting; • As a post-seeding drench, transplant-water drench or hill drench; • As a subsurface side-dress on both sides of each row. The application must be incorporated into the root-zone.
† Suppression only		

GREENHOUSE APPLICATIONS

NOT PERMITTED IN CALIFORNIA unless otherwise directed by supplemental labeling

- Because all varieties of cucurbit vegetables have not been tested for tolerance to TORRENT 2F applied to seedling flats, it is recommended that a test application be made to a small number of plants and tolerance confirmed for 7 days prior to treating the entire greenhouse.
- Greenhouse applications only provide short-term protection and are not intended as a substitution for field applications. For continuous protection, a field application must be made within 2 weeks of transplanting.
- Significant plant injury may result from higher application rates or increased numbers of applications than those recommended below.
- Maximum TORRENT 2F applications per crop season: 1
- Maximum TORRENT 2F allowed per crop season: 0.1 fluid ounces (0.00156 lb. AI/A) / 1000 plants

Pest	Application Rate (fl. oz. / 1000 plants)	Specific Instructions
Aphids Whiteflies	0.1	No more than 7 days prior to transplanting, apply the specified amount of TORRENT 2F targeting the soil media (tray drench) using one of the following methods: • As a uniform high-volume broadcast foliar spray followed immediately by sufficient overhead irrigation to wash the TORRENT 2F from the foliage and into the potting media without drainage from the bottom of the tray. NOTE: Failure to wash the application from the leaves may result in reduced efficacy; or, • As an injection into an overhead irrigation system using adequate volume to thoroughly saturate the soil media without drainage from the bottom of the tray.

FRUITING VEGETABLES

NOT FOR USE ON CROPS GROWN FOR SEED unless allowed by state-specific supplemental labeling

Eggplant, Ground cherry, Okra, Pepper (including bell, chili, cooking, pimento and sweet), Tomato, Pepinos, Tomatillo

FIELD APPLICATIONS

- Pre-Harvest Interval (PHI): 21 days
- Okra and Pepper - Maximum TORRENT 2F allowed per crop season: 32.0 fluid ounces/Acre (0.50 lb. AI/A)
- All other crops - Maximum TORRENT 2F allowed per crop season: 24.0 fluid ounces/Acre (0.38 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Aphids Colorado Potato Beetle Flea Beetles Leafhoppers Thrips (foliage-feeding only) Whiteflies Symptoms of: Tomato mottle virus† Tomato spotted wilt virus† Tomato yellow leaf curl virus†	Okra and Pepper 16.0 – 32.0	Apply the specified amount of TORRENT 2F using one of the following methods: • As a chemigation application into the root-zone using low-pressure drip, trickle, micro-sprinkler or equivalent equipment; • As an in-furrow spray directed on or below the seed; • As a narrow surface band spray (2" or less in width) over the seed-line during planting. Within 24 hours the application must be incorporated to a depth of 1 – 1½" and sufficiently irrigated; • As a narrow band spray directly below the eventual seed row as part of a bedding operation no more than 14 days before planting; • As a post-seeding drench, transplant-water drench or hill drench; or, • As a subsurface side-dress on both sides of each row. The application must be incorporated into the root-zone.
	All Other Crops 16.0 – 24.0	
† Suppression only		

GREENHOUSE APPLICATIONS

NOT PERMITTED IN CALIFORNIA unless otherwise directed by supplemental labeling

- Significant plant injury may result from higher application rates or increased numbers of applications than those recommended below.
- Greenhouse applications only provide short-term protection and are not intended as a substitution for field applications. For continuous protection, a field application must be made within 2 weeks of transplanting.
- Because all varieties of fruiting vegetables have not been tested for tolerance to TORRENT 2F applied to seedling flats, it is recommended that a test application be made to a small number of plants and tolerance confirmed for 7 days prior to treating the entire greenhouse.
- Maximum TORRENT 2F applications per crop season: 1
- Maximum TORRENT 2F allowed per crop season: 0.1 fluid ounces (0.00156 lb. AI/A) / 1000 plants

Pest	Application Rate (fl. oz. / 1000 plants)	Specific Instructions
Aphids Whiteflies	1.4	No more than 7 days prior to transplanting, apply the specified amount of TORRENT 2F targeting the soil media (tray drench) using one of the following methods: • As a uniform high-volume broadcast foliar spray followed immediately by sufficient overhead irrigation to wash the TORRENT 2F from the foliage and into the potting media without drainage from the bottom of the tray. NOTE: Failure to wash the application from the leaves may result in reduced efficacy; or, • As an injection into an overhead irrigation system using adequate volume to thoroughly saturate the soil media without drainage from the bottom of the tray.

GREENHOUSE VEGETABLES†

NOT FOR USE ON CROPS GROWN FOR SEED unless allowed by state-specific supplemental labeling

Mature Cucumber and Tomato plants in production greenhouses ONLY

- Because all varieties of greenhouse vegetables have not been tested for tolerance to TORRENT 2F, it is recommended that a test application be made to a small number of plants and tolerance confirmed for 7 days prior to treating the entire greenhouse.
- TORRENT 2F applications may result in negative effects on some beneficial species (*Orius* sp.) and bumble bee pollinators being repelled.
- Phytotoxicity may occur if applications are made to immature plants.
- Pre-Harvest Interval (PHI): 21 days
- Maximum TORRENT 2F applications per crop season: 1

Pest	Application Rate (fl. oz. / 1000 plants)	Specific Instructions
Aphids Whiteflies	1.4	Make applications when infestation pressure surpasses the ability of beneficials to maintain pest populations below damage thresholds. Apply the recommended amount in a minimum of 16 gallons of water for tomatoes and 21 gallons of water for cucumbers as a soil drench or using micro-irrigation, drip irrigation or hand-held or motorized calibrated irrigation equipment.

HEAD AND STEM BRASSICA VEGETABLES AND LEAFY VEGETABLES

NOT FOR USE ON CROPS GROWN FOR SEED unless allowed by state-specific supplemental labeling

Broccoli, Broccoli raab (rapini), Brussels sprouts, Cabbage, Cauliflower, Cavalo broccoli, Chinese (gai lon) Broccoli, Chinese (bok choy) cabbage, Chinese (napa) cabbage, Chinese mustard (gai choy) cabbage, Collards, Kale, Kohlrabi, Mizuna, Mustard greens, Mustard spinach, Rape greens, Turnip (tops or leaves)

Amaranth (leafy amaranth, Chinese spinach, tampala), Arugula (roquette), Chervil, Chrysanthemum (edible leaved and garland), Cilantro, Corn salad, Cress (garden), Cress (upland, yellow rocket, winter cress), Dandelion, Dock (sorrel), Endive (escarole), Lettuce (head and leaf), Orach, Parsley, Purslane (garden and winter), Raddicchio (red chicory), Spinach (including New Zealand and vine (Malabar Spinach, Indian spinach)), Watercress (commercial production only), Watercress (upland)

- Do NOT apply to native cress growing in streams or other bodies of water
- Pre-Harvest Interval (PHI): 21 days
- Maximum TORRENT 2F allowed per crop season: 24.0 fluid ounces/Acre (0.38 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Aphids Whiteflies	10.0 – 24.0	Apply the specified amount of TORRENT 2F using one of the following methods: • As a chemigation application into the root-zone using low-pressure drip, trickle, micro-sprinkler or equivalent equipment; • As an in-furrow spray directed on or below the seed; • As a narrow surface band spray (2” or less in width) over the seed-line during planting. Within 24 hours the application must be incorporated to a depth of 1 – 1½“ and sufficiently irrigated; • As a narrow band spray directly below the eventual seed row as part of a bedding operation no more than 14 days before planting; • As a post-seeding drench, transplant-water drench or hill drench; or, • As a subsurface side-dress on both sides of each row. The application must be incorporated into the root-zone.

LEAFY PETIOLE VEGETABLES

NOT FOR USE ON CROPS GROWN FOR SEED unless allowed by state-specific supplemental labeling

Cardoon, Celery, Celtuce, Chinese celery (fresh leaves and stalk only), Florence fennel (including sweet anise, sweet fennel, Finocchio), Rhubarb and Swiss Chard

- Pre-Harvest Interval (PHI): 45 days
- Maximum TORRENT 2F allowed per crop season: 24.0 fluid ounces/Acre (0.38 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Aphids Leafhoppers Whiteflies	10.0 – 24.0	Apply the specified amount of TORRENT 2F using one of the following methods: • As a chemigation application into the root-zone using low-pressure drip, trickle, micro-sprinkler or equivalent equipment; • As an in-furrow spray directed on or below the seed; • As a narrow surface band spray (2" or less in width) over the seed-line during planting. Within 24 hours the application must be incorporated to a depth of 1 – 1½" and sufficiently irrigated; • As a narrow band spray directly below the eventual seed row as part of a bedding operation no more than 14 days before planting; • As a post-seeding drench, transplant-water drench or hill drench; or, • As a subsurface side-dress on both sides of each row. The application must be incorporated into the root-zone.

LEGUME VEGETABLES (except soybean, dry)

NOT FOR USE ON CROPS GROWN FOR SEED unless allowed by state-specific supplemental labeling

Edible podded and Succulent shelled pea and Bean and Dried Shelled Pea and Bean including:

Bean – *Lupinus* spp. (grain lupin, sweet lupin, white lupin, and white sweet lupin)

Bean – *Phaseolus* spp. (field bean, kidney bean, lima bean, navy bean, pinto bean, runner bean, snap bean, tepary bean, wax bean)

Bean – *Vigna* spp. (adzuki bean, asparagus bean, blackeyed pea, catjang, Chinese longbean, cowpea, Crowder pea, moth bean, mung bean, rice bean, Southern pea, urd bean, yard long bean)

Pea – *Pisum* spp. (dwarf pea, edible pea, edible-pod pea, English pea, field pea, garden pea, green pea, snow pea, sugar snap pea)

Other Beans and Peas – Broad bean (fava), chickpea (garbanzo bean), Guar, Jackbean, Lablab bean, hyacinth bean, lentil, Pigeon pea, soybean (immature seed), Sword bean

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Aphids Leafhoppers Thrips (foliage-feeding only) Whiteflies Symptoms of: Bean common mosaic virus† Bean golden mosaic virus† Beet curly top hybrigeminivirus†	16.0 – 24.0	Apply the specified amount of TORRENT 2F using one of the following methods: • As a chemigation application into the root-zone using low-pressure drip, trickle, micro-sprinkler or equivalent equipment; • As an in-furrow spray directed on or below the seed; • As a narrow surface band spray (2" or less in width) over the seed-line during planting. Within 24 hours the application must be incorporated to a depth of 1 – 1½" and sufficiently irrigated; • As a narrow band spray directly below the eventual seed row as part of a bedding operation no more than 7 days before planting; or, • As a post-seeding drench, transplant-water drench or hill drench.
† Suppression only		

- Pre-Harvest Interval (PHI): 21 days
- Maximum TORRENT 2F allowed per crop season: 24.0 fluid ounces/Acre (0.38 lb. AI/A)

ROOT VEGETABLES

NOT FOR USE ON CROPS GROWN FOR SEED unless allowed by state-specific supplemental labeling

Beet (garden)†, Burdock (edible)†, Carrot†, Celeriac†, Chervil (turnip-rooted)†, Chicory†, Ginseng, Horseradish, Parsley (turnip-rooted), Parsnip†, Radish†, Oriental radish (diakon)†, Rutabaga†, Salsify (black)†, Salsify (oyster plant), Salsify (Spanish), Skirret and Turnip†

† The tops or greens from these crops may be utilized for food or feed.

- TORRENT 2F applications to crops grown on very high organic matter content (muck) soils may require additional pest management control.
- Pre-Harvest interval (PHI): 21 days
- Maximum number of TORRENT 2F applications per crop season: 1
- Maximum amount of TORRENT 2F allowed per crop season: 24.0 fluid ounces/Acre (0.38 lb. AI/A)

Pest	Fluid ounces per 1000 Row-Feet	Fluid ounces per Acre	Specific Instructions
Aphids Flea Beetles Leafhoppers Whiteflies	0.7 – 1.7	10.0 – 24.0	Apply the specified amount of TORRENT 2F using one of the following methods: • As an in-furrow spray or shanked-in 1 to 2 inches below seed depth during planting; • Within 14 days of planting as a narrow surface band spray (2" or less in width) directly below (1 to 2 inches) the eventual seed-line in a bedding operation; • As a chemigation application directly into the root zone using low-pressure trickle, drip, micro-sprinkler or equivalent irrigation equipment. NOTE: The rate applied affects the length of control and higher rates should be used when infestations occur later in crop development or when pest pressure is continuous. Application rates less than 0.7 fl. oz. / 1000 row feet will not provide adequate residual pest control.

TUBEROUS and CORM VEGETABLES

NOT FOR USE ON CROPS GROWN FOR SEED unless allowed by state-specific supplemental labeling

Arracacha, Arrowroot, Artichoke (Chinese and Jerusalem), Canna (edible, Queensland arrowroot), Cassava (bitter and sweet)†, Chayote (root), Chufa, Dasheen (taro)†, Ginger, Leren, Sweetpotato, Tanier (cocoyam)†, Tumeric, Yam bean (jicama, manoic pea), Yam (true)†

NOTE: For applications to Potatoes refer to the Field Crops section of this label.

† The tops or greens from these crops may be utilized for food or feed.

- TORRENT 2F applications to crops grown on very high organic matter content (muck) soils may require additional pest management control.
- Pre-Harvest Interval (PHI): 3 days (leaves); 125 days (corms)
- Maximum TORRENT 2F allowed per crop season: 24.0 fluid ounces/Acre (0.38 lb. AI/A) on other crops.
- Maximum TORRENT 2F applications per crop season: 1

Pest	Fluid ounces per 1000 Row-Feet	Fluid ounces per Acre	Specific Instructions
Aphids Flea Beetles Leafhoppers Whiteflies	0.7 – 1.7	10.0 – 24.0	Apply the specified amount of TORRENT 2F using one of the following methods: • As an in-furrow spray over planting materials (hulis) using the rate specified per 1000 row-feet or shanked-in 1 to 2 inches below hulis depth during planting; • As a side-dress no more than 45 days after planting using no more than 0.6 fl. oz. / 1000 row-feet. NOTE: The rate applied affects the length of control and higher rates should be used when infestations occur later in crop development or when pest pressure is continuous. Application rates less than 0.7 fl. oz. / 1000 row feet will not provide adequate residual pest control.

STRAWBERRY

NOT FOR USE ON CROPS GROWN FOR SEED unless allowed by state-specific supplemental labeling

NOTE: DO NOT use both application methods on the same crop in the same season.

ANNUAL AND PERENNIAL CROPS

- Do NOT apply during bloom or within 10 days prior to boom or when bees are actively foraging.
- Pre-Harvest Interval (PHI): 14 days
- Maximum TORRENT 2F allowed per crop season: 32.0 fluid ounces/Acre (0.50 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Aphids Whiteflies	24.0 – 32.0	Apply the specified amount of TORRENT 2F using one of the following methods: • After plants are established or on perennial crops in early spring prior to bud opening as a chemigation application into the root-zone using low-pressure drip, trickle, micro-sprinkler or equivalent equipment; • As a plant hole or plant material treatment just prior to or during transplanting. NOTE: The rate applied affects the length of control and higher rates should be used when infestations occur later in crop development or when pest pressure is continuous.

POST-HARVEST USE ON PERENNIAL CROPS

- Within 2 hours of a soil-surface application, 0.25" of rainfall or overhead irrigation water per acre must be applied or decreased activity of beetle grubs may result from failure to adequately incorporate TORRENT 2F into the egg-deposition zone.
- Pre-Harvest Interval (PHI): 14 days
- Maximum TORRENT 2F allowed per crop season: 24.0 fluid ounces/Acre (0.38 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
White Grub Complex (grubs of Asiatic garden beetle, European and Masked chafer, Japanese beetle and Oriental Beetle)	16.0 – 24.0	Using one of the following methods, apply the specified amount of TORRENT 2F as a single post-harvest application that coincides with renovation of the strawberry fields and during the active egg-laying period of the beetles: • As a ground spray via boom or backpack sprayer in a minimum of 20 gallons of water per acre; • As a row-band spray using an adjusted amount of product based on the treated row band area in proportion to the amount required per full acre. The bandwidth should be equivalent to the width of the anticipated fruiting bed; or, As a chemigation application with 600 to 1000 gallons of water followed by 0.10 to 0.25 inches of irrigation. NOTE: The rate applied affects the length of control and higher rates should be used when infestations occur later in crop development or when pest pressure is continuous.

SUGARBEET (CALIFORNIA ONLY)

NOT FOR USE ON CROPS GROWN FOR SEED unless allowed by state-specific supplemental labeling

- Maximum TORRENT 2F allowed per crop season: 12.0 fluid ounces/Acre (0.18 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Aphids Flea Beetles Leafhoppers Whiteflies Symptoms of: Western yellows† Beet curly top hybrigeminivirus†	6.0 – 12.0	Apply the specified amount of TORRENT 2F directly below each seed furrow either during the bedding operation immediately prior to planting or at the time of planting using sufficient carrier volume to insure uniform application. NOTE: To aid establishment of stands in whitefly areas or for early season control of the other pests listed, the low rate may be used.
† Suppression only		

BUSHBERRY

Blueberry, Currant, Elderberry, Gooseberry, Huckleberry, Juneberry, Lingonberry, Salal

- Within 2 hours of a soil-surface application, 0.25" of rainfall or overhead irrigation water per acre must be applied or decreased activity of beetle grubs may result from failure to adequately incorporate TORRENT 2F into the egg-deposition zone.
- Pre-Harvest Interval (PHI): 7 days
- Maximum TORRENT 2F allowed per crop season: 32.0 fluid ounces/Acre (0.50 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Japanese Beetle (adults feeding on foliage) White Grub Complex (grubs of Asiatic garden beetle, European and Masked chafer, Japanese beetle and Oriental Beetle)	16.0 – 32.0	Application to grass covered rows, row middles, drive lanes, headlands, and other grassy areas in and around the berry field will control resident grub populations. Applications directed to the root-zone will help protect berry plant roots from grub feeding. Apply the specified amount of TORRENT 2F to moist soil using one of the following methods: • As an 18 inch band on each side of the row followed by 0.25 inches of irrigation immediately after application; or, • As a chemigation application directly into the root zone using low-pressure trickle, drip, micro-sprinkler or equivalent irrigation equipment. If necessary, apply one hour of irrigation water immediately before application. To ensure maximum efficacy, apply 1/2 to 1 inch of irrigation water or rainfall within 24 hours of application. Applications may be made post-bloom up to 7 days prior to harvest, or post-harvest until October 1st. For optimum control of Japanese beetle larvae, make applications from June 1 to July 15. For best results, apply TORRENT 2F to control 1st or 2nd instar larvae.

CITRUS (CONTAINERIZED)

Calamondin, Citrus citron, Citrus hybrids (includes chironja, tangelo and tangor), Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Pummelo, Orange (sweet and sour), Tangelo, Satsuma mandarin, White sapote (Casimiroa spp.) and other cultivars and/or hybrids of these

Pest	Application Rate (mL/cubic foot of container media)	Specific Instructions
Aphids Asian citrus psyllid Black fly Citrus leafminer Leafhoppers / Sharpshooters Mealybugs Scales Whiteflies	0.75	Determine the volume of the container and calculate the appropriate dosage necessary to treat the container. Apply the calculated amount of TORRENT 2F as a soil drench or through low-pressure drip or trickle irrigation using sufficient carrier volume to ensure thorough and uniform distribution throughout the media without draining from the bottom of the container. For best results, treatment should be made at planting prior to insect infestation and retreat if necessary. To control larvae of the citrus root weevil complex, make applications prior to neonate larvae entering potting media. For heavy infestations use higher dosages.
Citrus root weevil (larval complex)	1.25 – 2.50	
Citrus Thrips†	2.50	
† Suppression only.		

CITRUS (FIELD)

Calamondin, Citrus citron, Citrus hybrids (includes chironja, tangelo and tangor), Grapefruit, Kumquat, Lemon, Lime, Mandarin (tangerine), Pummelo, Orange (sweet and sour), Tangelo, Satsuma mandarin, White sapote (Casimiroa spp.) and other cultivars and/or hybrids of these

- Pre-Harvest Interval (PHI): 0 days
- Maximum TORRENT 2F allowed per crop season: 32.0 fluid ounces/Acre (0.50 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Aphids Asian citrus psyllid Black fly Citrus leafminer Leafhoppers / Sharpshooters Mealybugs Scales Termites (FL only) Whiteflies	16.0 – 32.0	Apply the specified amount of TORRENT 2F using one of the following methods: • For very coarse soils with 0.75% or less organic matter, apply as a soil-surface band spray on both sides of the tree. Bands should overlap at the tree base to create a continuous band within the drip-line area of the tree. Immediately after application irrigate with a sufficient amount of water to move the TORRENT 2F into the upper portion of the root zone; • For trees up to 8' tall, drench immediately around the trunk extending outward to cover the entire fibrous root system of the tree. Do NOT exceed more than one-quart total solution per tree; • For control of existing termite infestations, apply the specified dosage to the basal portion of the tree trunk and surrounding soil as a drench application in 1 to 4 quarts of total solution volume, depending on the size of the tree. • As a chemigation application directly into the root zone using low-pressure trickle, drip, micro-sprinkler or equivalent irrigation equipment. For best results, apply to moist soil to break soil surface tension prior to application. Applications must be followed by 10 to 20 minutes of additional watering to move TORRENT 2F into the root-zone. Allow 24 hours before making subsequent applications.
Symptoms of: Citrus tristeza virus† Citrus yellows† Thrips (foliage feeding only)†	32.0	
† Suppression only.		

CRANBERRY

- Do NOT apply during bloom.
- TORRENT 2F has NOT been tested in tank-mixes with other registered pesticides. Premix a sample of the desired tank-mix using the labeled rates and test in a small area prior to use. Evaluate the test area within 48 hours and for at least two weeks prior to using the tank-mix on larger areas. Do not apply if damage results in the test site.
- Pre-Harvest Interval (PHI): 30 days
- Maximum TORRENT 2F allowed per crop season: 32.0 fluid ounces/Acre (0.50 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Rootgrubs (Scarabaeidae) Rootworms (Chrysomelidae)	16.0 – 32.0	For best results, make applications post-bloom immediately after bees are removed. Using one of the following methods, apply the specified amount of TORRENT 2F to moist soil: • As a ground spray in a minimum of 20 gallons of water per acre directed to the root and crown area; or, • As a chemigation application with 600 to 1000 gallons of water. Immediately after application the TORRENT 2F must be incorporated into the root zone by applying 0.1 – 0.3 inches of water / Acre either through chemigation or through irrigation / rainfall. Reduced control will result if the application is not incorporated within 24 hours. NOTE: The rate applied affects the length of control and higher rates should be used when infestations occur later in crop development or when pest pressure is continuous.

GRAPE

American bunch grape, Muscadine grape and Viniferous grape

- Pre-Harvest Interval (PHI): 30 days
- Maximum TORRENT 2F allowed per crop season: 32.0 fluid ounces/Acre (0.50 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Leafhoppers / Sharpshooters Mealybugs *Phylloxera* spp.‡	16.0 – 32.0	Apply the specified amount of TORRENT 2F using one of the following methods: • As a hill-drench using sufficient water to insure incorporation into the root-zone followed by irrigation; • As a subsurface side-dress shanked into the root-zone on both sides of the plants followed by irrigation; or, • As a chemigation application directly into the root zone using low-pressure trickle, drip, micro-sprinkler or equivalent irrigation equipment. For best results, make applications between bud-break and the pea-berry stage.
Pierce's Disease†	24.0 – 32.0	
† Suppression only. ‡ Regular and repeated use of TORRENT 2F over multiple consecutive growing seasons will control existing *Phylloxera* infestations over time.		

HOP

NOT PERMITTED IN CALIFORNIA unless otherwise directed by supplemental labeling

- Pre-Harvest Interval: 60 days
- Maximum TORRENT 2F allowed per crop season: 19.2 fluid ounces/Acre (0.30 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Aphids	19.2	Apply the specified amount of TORRENT 2F using one of the following methods: • As a hill-drench using sufficient water to insure incorporation into the root-zone followed by irrigation; • As a subsurface side-dress shanked into the root-zone on both sides of the plants followed by irrigation; or, • As a chemigation application directly into the root zone using low-pressure trickle, drip, micro-sprinkler or equivalent irrigation equipment.

PECAN

- Applications may be made from May 15th until July 15th. Applications made later in the season may result in reduced efficacy.
- Pre-Harvest Interval (PHI): 7 days
- Maximum TORRENT 2F allowed per crop season: 32.0 fluid ounces/Acre (0.50 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Aphids Twolined spittlebug Pecan scab† (from reduction in honeydew deposition)	16.0 – 32.0	Apply the specified amount of TORRENT 2F to slightly most soil using one of the following methods: • As an emitter or spot application in a minimum of 4 fl. oz. of mixture per emitter site; • As a subsurface side-dress shanked into the root-zone near the emitter line. Treat distance wetted by the emitter set of each tree; or, • As a chemigation application directly into the root zone using low-pressure trickle, drip, micro-sprinkler or equivalent irrigation equipment.
† Suppression only.		

POME FRUIT

NOT PERMITTED IN CALIFORNIA unless otherwise directed by supplemental labeling

Apple, Crabapple, Loquat, Mayhaw, Pear (including Oriental pear) Quince

- Pre-Harvest Interval (PHI): 21 days
- Maximum TORRENT 2F allowed per crop season: 24 fluid ounces/Acre (0.38 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Aphids (including woolly apple aphid) Leafhoppers	16.0 – 24.0	Apply the specified amount of TORRENT 2F as a chemigation application directly into the root zone using low-pressure trickle, drip, micro-sprinkler or equivalent irrigation equipment.

STONE FRUIT

NOT PERMITTED IN CALIFORNIA unless otherwise directed by supplemental labeling

Apricot, Cherry (including sweet and tart), Nectarine, Peach, Plum (including Chickasaw, Damson and Japanese), Plumcot, Prune (fresh and dried)

- Pre-Harvest Interval (PHI): 21 days
- Maximum TORRENT 2F allowed per crop season: 24.0 fluid ounces/Acre (0.38 lbs. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Aphids (including woolly apple aphid) Leafhoppers	16.0 – 24.0	Apply the specified amount of TORRENT 2F as a chemigation application directly into the root zone using low-pressure trickle, drip, micro-sprinkler or equivalent irrigation equipment.

STONE FRUIT PRE-PLANT ROOT DIP APPLICATION –

TORRENT 2F may be used to control black beach aphids infesting roots as a pre-plant root dip of 2.0 fl. oz. of TORRENT 2F per 10 gallons of water. To apply, thoroughly wet the bare-root transplants by soaking the roots to slightly above the graft union for up to five minutes. Allow the solution to dry on the roots and transplant the trees as soon as possible after treatment.

TROPICAL FRUIT

NOT PERMITTED IN CALIFORNIA unless otherwise directed by supplemental labeling

Acerola, Avocado, Black sapote, Canistel, Feijoa, Jaboticaba, Guava, Longan, Lychee, Mamey sapote, Mango, Papaya, Passionfruit, Pulasan, Rambutan, Sapodilla, Spanish lime, Star apple, Star fruit, Wax jambu

- Pre-Harvest Interval (PHI): 6 days
- Maximum TORRENT 2F allowed per crop season: 32.0 fluid ounces/Acre (0.50 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Aphids Leafhoppers Whiteflies	24.0 – 32.0	Apply the specified amount of TORRENT 2F as a chemigation application directly into the root zone using low-pressure trickle, drip, micro-sprinkler or equivalent irrigation equipment.
Scales†	32.0	
† Suppression only.		

POPLAR/COTTONWOOD (including members of the genus *Populus* grown for pulp or timber)

NOT PERMITTED IN CALIFORNIA unless otherwise directed by supplemental labeling

- Maximum TORRENT 2F allowed per crop season: 32.0 fluid ounces/Acre (0.50 lb. AI/A)

Pest	Application Rate (fl. oz. / Acre)	Specific Instructions
Aphids Cottonwood leaf beetle	16.0 – 32.0	Apply the specified amount of TORRENT 2F as a chemigation application directly into the root zone using low-pressure drip irrigation equipment. **Cottonwood leaf beetle:** For best results make application when beetles first begin feeding. Larger trees may require earlier treatments as a result of slower uptake. **Phylloxerina:** Make applications early in the year from break of dormancy through May.
Phylloxerina popularia†		
† Suppression only.		

STORAGE AND DISPOSAL

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

PESTICIDE STORAGE: Store in cool, dry place and in such a manner as to prevent cross contamination with other pesticides, fertilizers, food and feed. Store in original container and out of the reach of children, preferably in a locked storage area.

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

CONTAINER DISPOSAL: Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

WARRANTY AND LIMITATION OF DAMAGES

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