



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

OFFICE OF CHEMICAL SAFETY
AND POLLUTION PREVENTION

January 25, 2018

Katelyn Pecszenka
Commercial Sales
Custom Liquid Solutions, LLC
534 CR 529A
Lake Panasoffkee, FL 33538

Subject: Non-PRIA (Pesticide Registration Improvement Act) Labeling Amendment – Add direction for use for a tobacco crop and equivalent ounce to mL and pound to kg measurements to the label.
Product Name: Formula 691
EPA Registration Number: 87193-1
Application Date: 11/28/2017
OPP Decision Number: 536367

Dear Ms. Pecszenka:

The amended labeling referred to above, submitted in connection with registration under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA), as amended, is acceptable.

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

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

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

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process. Therefore, should the EPA find or if it is brought to our attention that a website contains false or misleading statements or claims substantially differing from the EPA-approved registration, the website will be referred to the EPA's Office of Enforcement and Compliance Assurance.

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

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

Sincerely,

A handwritten signature in blue ink that reads "Andrew C. Bryceland". The signature is fluid and cursive, with the first name "Andrew" and last name "Bryceland" clearly legible.

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

Enclosure

ACCEPTED

01/25/2018

Under the Federal Insecticide, Fungicide
and Rodenticide Act as amended, for the
pesticide registered under
EPA Reg. No. 87193-1

Formula 691
Plant Growth Regulator
CONCENTRATE COMMERCIAL /
AGRICULTURAL

ACTIVE INGREDIENTS

Cytokinin (as kinetin) 0.30%
Indole-3-butyric acid 0.15%
Gibberellic acid 0.25%

OTHER INGREDIENTS 99.30%

TOTAL 100.00%

KEEP OUT OF REACH OF CHILDREN

CAUTION

FIRST AID	
IF IN EYES	<ul style="list-style-type: none">x Hold eye open and rinse slowly and gently with water for 15 to 20 minutes.x Remove contact lenses, if present, after the first minutes, then continue rinsing eye.x Call a poison control center or doctor for treatment advice
IF ON SKIN OR CLOTHING	<ul style="list-style-type: none">x Take off contaminated clothing.x Rinse skin immediately with plenty of water for 15 to 20 minutes.x Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. FOR CHEMICAL EMERGENCY: Spill, leak, fire, exposure, or accident, call CHEMTREC at 1-800-424-9300.	

Read additional precautionary statements found inside booklet

EPA Reg. No. 87193-R

EPA Est. No. 87193-FL-1

Manufactured for:
Custom Liquid Solutions, LLC.
534 CR 529A
Lake Panasoffkee, FL 33583
(352) 793-1682

Lot. No. _____

Net contents: _____

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

CAUTION: Harmful if absorbed through skin. Causes mild eye irritation. Avoid contact with skin, eyes, or clothing. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, or using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Personal Protective Equipment (PPE)

Mixers, loaders, applicators and other handlers must wear

- x long sleeved shirt and long pants
- x shoes plus socks and
- x chemical resistant gloves

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

USER SAFETY RECOMMENDATIONS

Users should:

Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove clothing 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

For terrestrial uses: Do not apply directly to water or to surface areas where water is present or to intertidal areas below the mean high-water mark. Do not contaminate water by cleaning of equipment or disposal of equipment wash water or rinsate.

DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

Do not apply this product in a way that will contact workers or other persons, either directly or indirectly, or through drift. Only protected handlers may be in the area during application. For any requirements specific to your State or Tribe, consult the State or Tribal agency responsible for pesticide regulation.

AGRICULTURAL USE REQUIREMENTS

Use this product only in accordance with its labeling and with the Worker Protection Standard, 40 CFR Part 170. This Standard contains requirements for the protection of 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 and restricted entry intervals. The requirements in this box apply only to uses of this product that are covered by the Worker Protection Standard.

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

EXCEPTION: If the product is 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:

- x coveralls over long sleeved shirt and long pants
- x chemical-resistant gloves
- x shoes plus socks

Non-Agricultural Use Requirements

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

Commercial seed treatments and applications to lawn grasses, golf courses, industrial (office park), and municipal lawns are not within the scope of the Worker Protection Standard.

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

PRODUCT DESCRIPTION

Formula 691 is a blend of naturally - derived plant growth hormones to enhance root development and top growth, and improve resistance to stresses in a wide variety of crops, including fruiting and leafy vegetables, tubers, corn, small grains, forage, and turf.

APPLICATION METHODS OR EQUIPMENT

When used as a seed treatment, the product is ready-to-use without dilution. For application as a foliar spray by aerial or ground equipment, or by chemigation, the product must be diluted as directed in the crops and rates sections.

APPLICATION INSTRUCTIONS

SHAKE WELL BEFORE MIXING

Chemigation Requirements

- Apply Formula 691 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. Do not apply product through any other type of irrigation system.
- Crop injury, lack of fungicidal effectiveness or illegal pesticide residues in the crop can result from nonuniform distribution of treated water.
- If you have questions about calibration, you should contact a State Extension Service specialist, equipment manufacturers, or other experts.
- Do not connect an irrigation system (including greenhouse systems) used for pesticide application to a public water system unless the pesticide label-prescribed safety devices for public water system are in place.
- A person knowledgeable of the chemigation system and responsible for its operation, or under the supervision of the responsible person, shall shut the system down and make necessary adjustments should the need arise.

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 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.

Specific Instructions for Sprinkler Irrigation Systems:

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 that will stop the water pump motor 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.
8. Good agitation is required in the injection tank.
9. In moving systems, apply specified dosage of FORMULA 691 as a continuous injection. In non-moving systems, inject FORMULA 691 for 15 to 30 minutes at end of cycle. Use the least amount of water possible consistent with uniform coverage.
10. Mix the amount of FORMULA 691 needed for acreage to be treated into the quantity of water determined during prior calibration. For moving systems, inject into the system continuously for one complete revolution of the field. For non-moving systems, inject into system for the time established during calibration.
11. Stop injection equipment after treatment is completed and continue to operate irrigation equipment until all FORMULA 691 is flushed from system.

SPRAY DRIFT MANAGEMENT

A variety of factors including weather conditions (e.g., wind direction, wind speed, temperature, relative humidity) and method of application (e.g., ground, aerial, airblast, chemigation) can influence pesticide drift. The applicator must evaluate all factors and make appropriate adjustments when applying this product.

Droplet Size**

Apply only as a medium or coarser spray (ASAE standard 572) or a volume mean diameter of 300 microns or greater for spinning atomizer nozzles.

Wind Speed

Do not apply at wind speeds greater than 15 mph. Only apply this product if the wind direction favors on-target deposition (approximately 3 to 10 mph), and there are no sensitive areas within 250 feet downwind.

Temperature Inversions

If applying at wind speeds less than 3 mph, the applicator must determine if a) conditions of temperature inversion exist, or b) stable atmospheric conditions exist at or below nozzle height. Do not make applications into areas of temperature inversions or stable atmospheric conditions.

Other State and Local Requirements

Applicators must follow all state and local pesticide drift requirements regarding application of copper compounds. Where states have more stringent regulations, they must be observed.

Equipment

All aerial and ground application equipment must be properly maintained and calibrated using appropriate carriers or surrogates.

Additional requirements for aerial applications:

The boom length must not exceed 75% of the wingspan or 90% of the rotor blade diameter. - Release spray at the lowest height consistent with efficacy and flight safety. Do not release spray at a height greater than 10 feet above the crop canopy unless a greater height is required for aircraft safety. - When applications are made with a crosswind, the swath must be displaced downwind. The applicator must compensate for this displacement at the up and downwind edge of the application area by adjusting the path of the aircraft upwind.

Additional requirements for ground boom application:

Do not apply with a nozzle height greater than 4 feet above the crop canopy.

General Mixing Instructions for foliar applications by aerial or ground equipment.

Fill spray tank 3/4 full with water, begin agitation, then pour in required amount of Formula 691 (as Noted in the crop and rates table below) while agitation is running. Continue agitation during the application.

For ground application, apply in 10 to 50 gallons of water per acre. For aerial application, apply in 3 to 5 gallons of water per acre.

- x **DO NOT EXCEED LISTED RATES** – Formula 691 is highly concentrated. Over-application will cause crop injury or death.
- x **TANK MIXING: Do not mix or apply this product with other pesticides**

CROPS AND RATES

FRUITING VEGETABLES

CROP	APPLICATION	RATE AND TIMING
BEANS AND PEAS	1st	1.5 ounces (44.5 mL) per acre when the first trifoliolate is unfolded
	2nd	1.5 ounces (44.5 mL) per acre two weeks after the first application
	3rd	1.5 ounces (44.5 mL) per acre at first bloom
CANTALOUPE, CUCUMBERS, MUSKMELON, WATERMELON, HONEYDEW, OKRA, AND SQUASH	1st	Apply 1.5 ounces (44.5 mL) per acre once the second leaf has completely unfolded*
	2nd	Apply 1.5 ounces (44.5 mL) per acre two weeks after the first application*
	3rd	Apply 1.5 ounces (44.5 mL) per acre two weeks after the second application*
*For maximum performance, apply continuous applications of 0.35 - 0.75 ounces (10.5 – 22 mL) per acre at 7-10 day intervals after the first application throughout the production season.		
EGGPLANT, PEPPER, AND TOMATO	1st	Apply 1.5 ounces (44.5 mL) per acre once the plant has three true leaves*
	2nd	Apply 1.5 ounces (44.5 mL) per acre two weeks after first application*
	3rd	Apply 1.5 ounces (44.5 mL) per acre two weeks after the second application*
*For maximum performance, apply continuous applications of 0.5 ounces (15 mL) per acre after the first application 7-10 day intervals throughout the growing season.		

LEAFY VEGETABLES

CROP	APPLICATION	RATE AND TIMING
ASPARAGUS, BROCCOLI, CABBAGE, CELERY, LETTUCE, MINT AND SPINACH	1st	Apply 1.5 ounces (44.5 mL) per acre once the four leaf has completely unfolded*
	2nd	Apply 1.5 ounces (44.5 mL) per acre two weeks after first application*
	3rd	Apply 1.5 ounces (44.5 mL) per acre after the second application*
*For maximum performance, apply continuous applications of 0.35 - 0.75 ounces (10.5 – 22 mL) per acre at 7-10 day intervals after the first application throughout the production season.		

ROOT VEGETABLES AND TUBERS

CROP	APPLICATION	RATE AND TIMING
WHITE OR RED POTATOES (Option 1**: To increase tuber size number and promote better rooting) OR	1st	Apply 1.5 ounces (44.5 mL) per acre at tuber initiation.
	2nd	Apply 1.5 ounces (44.5 mL) per acre two to three weeks after the first application. This application should be during tuber bulking.
WHITE OR RED POTATOES (Option 2**: To enhance tuber size and uniformity	1st	Apply 1.5 ounces (44.5 mL) per acre at tuber initiation.
	2nd	Apply 1.5 ounces (44.5 mL) per acre at the onset of tuber bulking
** Use only one of either option 1 or option 2		
CARROTS, PARSLEY, RADISHES, AND TURNIPS	1st	Apply 1.5 ounces (44.5 mL) per acre when the plants have three true leaves.
	2nd	Apply 1.5 ounces (44.5 mL) per acre two weeks after the first application.
	3rd	Apply 1.5 ounces (44.5 mL) per acre two weeks after the second application.
SWEET POTATOES AND YAMS	1st	Apply 0.1 - 0.2 ounces (3 – 6 mL) per acre on a band just wide enough to cover all the plants seven to fourteen days after transplanting.
	2nd	Apply 0.25 ounces (7.5 mL) per acre in a band like that completed in first application 28 days after transplanting.
	Remainder of Season	Apply 0.1 ounces (3 mL) per week along with a foliar fertilizer of choice at a rate of 32 ounces (946.5 mL) per acre. Continue this program on a weekly basis until the sweet potatoes or yams have reached desirable harvest size.

FIELD CROPS, CEREALS, AND FORAGES

CROP	APPLICATION	RATE AND TIMING
ALFALFA, Established	1st 2nd	Apply 1.5 ounces (44.5 mL) per acre upon dormancy break when sufficient re-growth is present. (approx. 1 - 2 inches) Apply 1.5 ounces (44.5 mL) per acre after each cutting. when sufficient re-growth is present. (approx. 1 - 2 inches)
ALFALFA, Freshly Seeded	one application per season	Apply 1.5 ounces (44.5 mL) per acre when seedling alfalfa is in the third to fourth trifoliolate stage.
CANOLA	1st 2nd 3rd	Apply 1.5 ounces (44.5 mL) per acre between the rosette and bolting stage. Apply 1.5 ounces (44.5 mL) per acre at 25% bloom. Apply 1.5 ounces (44.5 mL) per acre at early pod fill.
COTTON - Non-Transgenic Varieties Option 1**	1st 2nd 3rd	1st Application - Apply 1.5 ounces (44.5 mL) per 50 lbs. (23 kg) of seed in the hopper box OR Apply 1.5 ounces (44.5 mL) per acre in-furrow or banded in a 2" beside seed x 2" below seed or a 2" beside seed x 3" below seed type system. Apply 1.5 ounces (44.5 mL) per acre at pinhead square. Apply 2 ounces (59 mL) per acre at early bloom.
COTTON - Non-Transgenic Varieties Option 2**	1st 2nd 3rd	Apply 0.75 ounces (22 mL) per acre at the 3-7 true leaf stage. Apply 1.5 ounces (44.5 mL) per acre at pinhead square. Apply 1.5 ounces (44.5 mL) per acre at early bloom.
** Use only one of either option 1 or option 2		
COTTON - Transgenic Varieties*: (*Cotton varieties that have been genetically modified to have insect-resistance and/or herbicide resistance built-in)	1st 2nd Remainder of Season	Apply 1.5 ounces (44.5 mL) per 50 lbs. (23 kg) of seed in a hopper box. OR Apply 1.5 ounces (44.5 mL) per acre in-furrow or banded in a 2" beside seed x 2" below seed or a 2" beside seed x 3" below seed type system. 2nd Application - Apply 2 ounces (59 mL) per acre at pinhead square. 3rd Application - Apply 2 ounces (59 mL) per acre at first bloom. <i>If needed for vegetative growth control, repeat the application at mid-bloom*.</i>

*Higher rates and/or late season applications may be warranted under high stress conditions where square and/or boll retention is needed. During the bloom and post-bloom period, additional applications or higher rates can be applied **but do not exceed a total of 12.8 ounces (378.5 mL) per acre per season.**

FIELD CORN	1st	Apply 1.5 - 3 ounces (44.5 – 89 mL) per acre in-furrow or banded in a 2” beside seed x 2” below seed or a 2” beside seed x 3” below seed type system.
	2nd	Apply 1.5 ounces (44.5 mL) per acre at the 3-4 true leaf stage.
	3rd	Apply 1.5 ounces (44.5 mL) per acre at the 8-10 true leaf stage.
SWEET CORN AND POPCORN	1st	Apply 1.5 - 2.5 ounces (44.5 – 74 mL) per acre in-furrow or banded in a 2” beside seed x 2” below seed or a 2” beside seed x 3” below seed type system.
	2nd	Apply 1.5 ounces (44.5 mL) per acre when the plants are in the 4-6 true leaf stage.
	3rd	Apply 1.5 ounces (44.5 mL) per acre at the 8-10 true leaf stage.
FLAX	1st	Apply 1.5 ounces (44.5 mL) per acre when the plant is 2 - 4 inches tall.
	2nd	Apply 1.5 ounces (44.5 mL) per acre two to three weeks after first application.
GRAIN SORGHUM	1st	Apply 2.25 - 3 ounces (66.5 – 89 mL) per acre in-furrow or banded in a 2” beside seed x 2” below seed or a 2” beside seed x 3” below seed type system.
	2nd	Apply 1.5 ounces (44.5 mL) per acre at the 3-5 leaflet stage.
	3rd	Apply 1.5 ounces (44.5 mL) per acre between the 9th to 11th true leaf stage.
PEANUTS	1st	Apply 1.5 ounces (44.5 mL) per acre at the 3-5 leaflet stage.
	2nd	Apply 1.5 ounces (44.5 mL) per acre at early flowering.
	3rd	Apply 1.5 ounces (44.5 mL) per acre at initial pegging.
	4th	Apply 2 ounces (59 mL) per acre during early pod fill.
SOYBEANS	1st	Apply 1.5 ounces (44.5 mL) per acre at the third to fifth trifoliolate stage.
	2nd	Apply a second application of 1.5 ounces (44.5 mL) prior to bloom.
	OR	If first application is missed, apply 3 ounces (89 mL) per acre prior to bloom.

SUGAR BEETS	1st 2nd	Apply 1.5 ounces (44.5 mL) per acre between the 2nd and 10th true leaf stage. Apply 1.5 ounces (44.5 mL) per acre 2-3 weeks after the first application.
SUGARCANE	1st 2nd Additional Applications	Apply 2 ounces (59 mL) per acre in the furrow at planting. OR Apply 3.2 ounces (94.5 mL) per acre at the 2-3 leaf stage. Apply 1.5 ounces (44.5 mL) per acre one month after emergence. Apply 1.5 ounces (44.5 mL) per acre on monthly intervals throughout the production season for maximum benefit.
SUNFLOWERS	1st 2nd	Apply 1.5 ounces (44.5 mL) per acre at 4-true leaves. Apply an additional 1.5 ounces (44.5 mL) per acre two to three weeks later.
TOBACCO	1st 2nd 3rd	Apply 1.28 ounces (38 mL) per acre in the transplant solutions. Apply 1.28 ounces (38 mL) per acre at lay-by, by foliar application. Apply 1 ounce (30 mL) per acre at topping by foliar application.
WHEAT, BARLEY, OATS, AND RYE	USE ONLY 1 OF THESE 2 OPTIONS:	1. Apply 1.75 to 3 ounces (52 – 89 mL) per acre in-furrow at planting. OR 2. If no at-planting application, apply 1.5 ounces (44.5 mL) per acre prior to jointing. Apply 1.5 ounces (44.5 mL) at the flag leaf stage.

SPECIAL INSTRUCTIONS FOR RICE

Apply FORMULA 691 at 1.5 ounces (44.5 mL) per acre as a foliar spray to the plant during **either one but not both** of the following stages of development.

3 to 7 Leaf Stage: Apply after the rice seedling has 3 fully emerged leaves and the 4th leaf is beginning to emerge, but before the seedling has completed development of 7 leaves of 3 tillers. This period for application generally begins about 3-6 weeks after seeding and ends 5-9 week after seeding. The duration of this period depends on the variety and the growing conditions. This application may be made in conjunction with corresponding herbicide applications.

2 Millimeter (mm) Panicle Growth Stage: If the preferred application at the 3 to 7 leaf stage is missed, apply FORMULA 691 to stimulate cell differentiation in the developing panicle. Apply when no more than 10% of the main culms are at the 2 mm panicle growth stage. The 2 mm panicle growth stage occurs immediately after the internode elongation or joint movement has begun. FORMULA 691 **must be applied** as soon as internode elongation is detected so the 2 mm panicle growth stage is not missed. It is better to apply slightly early than to apply late.

IMPORTANT: Timing of the application at 2 mm growth stage is critical. Check the entire field for the stage of plan development. Large fields may require split application on upper and lower ends of the field to ensure proper timing throughout the field

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FRUIT CROPS

BANANAS:	1st	Apply 1.5 - 3 ounces (44.5 – 89 mL) per acre shortly prior to or at first bloom
	2nd	Apply 1.5 - 3 ounces (44.5 – 89 mL) per acre two to three weeks after the first application.
CITRUS (GRAPEFRUIT, LEMON, LIME, AND ORANGES): -	1st	Apply 1.5 - 3 ounces (44.5 – 89 mL) per acre at first bloom.
	2nd	Apply 1.5 - 3 ounces (44.5 – 89 mL) per acre two to three weeks later.
	Additional applications	If an extended bloom period is present, make additional applications of 1.5 – 3 ounces (44.5 – 89 mL) per acre.
GRAPES:	1st	Apply 1.5 ounces (44.5 mL) per acre shortly prior to or at first bloom.
	2nd	Apply 1.5 ounces (44.5 mL) per acre two weeks after the first application.
GUAVA AND PAPAYA:	1st	Apply 1.5 ounces (44.5 mL) per acre shortly prior to or at first bloom
	2nd	Apply 1.5 - 3 ounces (44.5 – 89 mL) per acre two to three weeks after the first application.
STONE (PEACH, CHERRY, APRICOT, NECTARINE):	1st	Apply 1.5 - 3 ounces (44.5 – 89 mL) per acre shortly prior to or at first bloom.
	2nd	Apply 1.5 - 3 ounces (44.5 – 89 mL) per acre two to three weeks after the first application.
STRAWBERRIES:	1st	Apply 1.5 ounces (44.5 mL) per acre shortly prior to or at first bloom.
	2nd	Apply 1.5 ounces (44.5 mL) per acre two weeks after first application.

SEED TREATMENT

SPECIAL NOTE FOR ALL DIRECT SEEDED CROPS

FORMULA 691 is a ready-to-use when used as a seed dressing that aids in germination and early season root and top growth.

Use FORMULA 691 at the rate of 0.5 – 1.75 ounce (15 – 52 mL) per 100 lbs. (45.5 kg) of seed. Use the higher rate when conditions favor poor germination such as cool soil temperatures or low germination seed. Mix well to ensure uniform coverage of the seeds with Formula 691. Uneven coverage can cause poor performance or crop injury.

SEED TYPE				
Alfalfa	Celery	Lettuce	Peas	Spinach
Barley	Corn	Melons	Peppers	Squash

Cabbage	Cotton	Oats	Rice	Sugar Beets
Canola	Cucumber	Okra	Rye	Sunflowers
Carrots	Dry Beans	Onions	Sorghum	Tomatoes
Cauliflower	Eggplant	Peanuts	Soybeans	Wheat

SEED TREATMENT (Continue)

RED OR WHITE POTATOES:

Choose *one* of the following methods:

Dip potato seed pieces in a solution of 1 part FORMULA 691 to 375 parts water (0.34 fl. oz. / gal. of water) for 30-60 seconds or spray seed pieces with the above solution so that seed pieces are covered and thoroughly wetted. FORMULA 691 can be used with a fungicide program.

OR

Use 0.15 oz. to 0.45 oz. (volumetric measurement), which equals 8 grams to 16 grams on a dry basis of FORMULA 691 per 100 lbs. of cut seed pieces. Treat seed pieces immediately after they have been cut. Apply so that the cut seed pieces are thoroughly covered. FORMULA 691 can be mixed with other seed treatment and carriers such as fir and alder bark to insure uniform coverage.

SWEET POTATOES AND YAMS:

Dip potato slips in a solution of 1 part FORMULA 691 to 375 parts of water (0.34 fl. oz. / gal. of water) for 30 to 60 seconds. FORMULA 691 can be used with a fungicide program.

MECHANICAL SEED TREATERS

Apply the appropriate amount of FORMULA 691 to a premeasured amount of seed and mix thoroughly until all seed are uniformly coated. Seed can be treated in this manner and stored until used for planting. **Do not use treated seed for food, feed, or oil purposes.** A dye approved by FDA for use in food crops must be added to the seed treating equipment to distinguish FORMULA 691 treated seed and prevent inadvertent use for food, feed, or oil purposes. Seed treated with this product must be labeled in accordance with all applicable requirements of the Federal and State seed laws. **DO NOT USE TREATED SEED FOR FOOD, FEED OR OIL PURPOSES.**

BROADCAST SEED APPLICATION

Partially fill broadcast spreader with a premeasured amount of seed. Dilute Formula 691 with water at a rate of 1 part Formula 691 to 2 parts water. Apply the appropriate amount of FORMULA 691 onto the surface of the seed in the seed spreader. Mix with a stick or paddle until all seed are coated. Repeat procedure until broadcast spreader is filled. **DO NOT USE TREATED SEED FOR FOOD, FEED OR OIL PURPOSES.** Treat only those seeds needed for immediate use and planting. Do not store excess treated seed beyond planting time.

SPECIAL NOTE FOR ALL TRANSPLANTED CROPS

Two methods are recommended for this program:

- A. Dip or spray roots with a solution of 0.35 fluid ounces (10.5 mL) of FORMULA 691 per gallon of water prior to transplanting.

B. Bedding seedlings may be sprayed or drenched in flats 12 – 24 hours before transplanting to reduce transplant shock with a solution of 0.35 fluid ounces (10.5 mL) of FORMULA 691 per gallon of water. Begin the foliar program two (2) weeks after transplanting. A combination of the transplant and foliar spray program is most effective.

TURFGRASS

For all turf grass, regardless of use, **DO NOT USE NO MORE THAN 0.1 FLUID OUNCES (3 mL) PER 1,000 SQUARE FEET PER MONTH.**

WARM SEASON TURF (Bermuda, Bermuda Hybrids, Zoysia, Centipede, St. Augustine, etc): For lower traffic areas and where FORMULA 691 is used as a maintenance program, begin applications early in the growing season, i.e. when grass is beginning to green. Apply at the rate of 0.1 fluid ounces (3 mL) per 1,000 square feet. For maintenance, apply this product on a two to three week schedule throughout the growing season. Application in combination with urea nitrogen fertilizer will increase the rate of growth and greening.

COOL SEASON TURF (Tall Fescue, Rye, Bentgrass, Bluegrass, etc.): Apply 0.10 fluid ounces (3 mL) per 1,000 square feet in fall, or when stand is established. Repeat application in late winter when grasses begin to grow actively.

FOLIAR APPLICATION WITH UREA NITROGEN FERTILIZER: **To achieve Increased** growth rate and deeper color apply FORMULA 691 in combination with urea nitrogen as a foliar spray. To prepare urea solution, dissolve 46% urea into the spray solution at the rate of 1.0 lb. per 5,000 square feet to be sprayed and apply with 0.1 fl. oz. / 1000 square feet of FORMULA 691.

SPECIAL RATES OF APPLICATION ON TURF

TEES AND GREENS: Apply 0.1 fluid ounces (3 mL) per 1,000 square feet on a 2-week schedule throughout the growing season. Begin in early spring after grasses have begun to grow. In Sunbelt (Florida, Georgia, Alabama, Mississippi, Arizona, Southwest California) and transition zones (North and South Carolinas, Tennessee) continue spray program throughout playing season. For courses north of the transition zone, continue applications through September.

FAIRWAYS: Begin applications in early spring as soon as grasses have begun to actively grow. Apply 0.1 fluid ounce (3 mL) per 1,000 square feet and repeat on a monthly schedule as long as grass is growing.

PRE-TOURNAMENT QUICK GREEN-UP: Apply at the rate of 0.1 fluid ounces (3 mL) per 1,000 square feet in conjunction with urea solution 4 to 5 days prior to playing time. Make application with a minimum spray volume of 0.5 gallon of water per 1,000 square feet.

SPRING DORMANCY BREAK: **To reduce spring die-back**, apply 0.1 fluid ounce (3 mL) per 1,000 square feet in spring as soon as new growth (opening) is visible. Dethatch prior to making this application.

FALL APPLICATION FOR WINTER HARDINESS: **To increase root mass and depth, and so reduce winter kill**, Make 2 applications 7-10 days apart in late summer or early fall just prior to the cessation of normal active growth. Apply 0.1 to 0.15 fluid ounces (3 – 4.5 mL) per 1,000 square feet. Make application with a spray volume of 0.5 gallon of water per 1,000 square feet. Applications at this time will greatly increase root mass and depth of roots. Winter kill problems are often greatly reduced.

COMMERCIAL TURF, CEMETERIES, ATHLETIC FIELDS, GOLF COURSES, AND OTHER FINE TURF AREAS: Apply 0.1 fluid ounces (3 mL) per 1,000 square feet at any point during the growing season, then make applications during the very early growth stages and continue on a regular monthly schedule throughout the growing season. Application at 2-week intervals improves resistance to injury in heavy traffic areas.

SOD FARMS

Apply 1.75 - 3.75 fluid ounces (52 – 111 mL) per acre on a monthly basis during the growing season. Two weeks prior to cutting sod, make an application of 1.75 - 3.75 fluid ounces (52 – 111 mL) per acre.

SPECIFIC RATES OF APPLICATION FOR SOD FARMS

After sod is cut, a reestablishment program is necessary. Start this program as soon as there is any greening over 30% of the area. Spray with 1.75 - 3.75 fluid ounces (52 – 111 mL) per acre of FORMULA 691. Repeat in 2 weeks and thereafter once per month throughout the growing season. Make a final application of 1.75 - 3.75 fluid ounces (52 – 111 mL) per acre 2 weeks before dormancy.

Start the monthly program again as soon as some green-up has started in the spring.

When species started from seed have reached 1 inch in height, the monthly treatment may be started and followed in the same way as non-seeded varieties.

SPECIAL NOTE FOR ALL DIRECT SEEDED GRASSES

FORMULA 691 is a ready-to-use seed dressing that aids in enhancing germination and early season root and top growth.

Use FORMULA 691 at the rate of 0.75 – 1.75 fluid ounces (22 – 52 mL) per 100 pounds of seed. Sufficient water needs to be added to insure uniform coverage. Non-uniform coverage can cause poor performance or crop injury.

STORAGE AND DISPOSAL

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

Pesticide Storage: Store this product in original container in a cool dry locked place out of the reach of children and out of direct sunlight. Protect from freezing.

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: Non-refillable container. Do not reuse or refill this container. Completely empty container into application equipment. Then offer for recycling if available, or dispose of empty container in a sanitary landfill or by incineration, or if allowed by State and local authorities, by burning. If burned, stay out of smoke.

CONDITIONS OF SALE

Custom Liquid Solutions (CLS) warrants that this product conforms to the chemical description on the label thereof and is reasonably fit for purposes stated on the label when used in accordance with directions under normal use conditions. TO THE EXTENT CONSISTENT WITH APPLICABLE LAW, crop Injury, product use ineffectiveness, or other unintended consequences may result because of such factors as weather conditions, presence of other materials, or the manner of use or application, all of which are beyond the control of CLS. To the extent consistent with applicable law, CLS shall not be liable for consequential, special, or indirect damages resulting from the use, handling, disposal, or shipping of this product. To the extent consistent with applicable law, all such risk shall be assumed by the buyer /end user. CLS makes no warranties of merchantability or fitness for a particular purpose nor any other express or implied warranty except as stated above.

No person or agent of manufacturer or seller has authority to make any representation or warranty or agreement relating to this product, except as explicitly stated herein.

To the extent consistent with applicable law, if you do not agree with or do not accept any of the directions for use, the warranty disclaimer, or limitations on liability, do not use the product and return it unopened to the Seller, and the purchase price will be refunded.