



**Tessenderlo  
KERLEY**  
*The Specialty Liquid Fertilizer People™*

# TRISERT® VGN

## 9-6-8

### FOLIAR FERTILIZER SOLUTION

### APPLICATION GUIDE FOR AGRICULTURAL CROPS, NURSERIES AND GREENHOUSES

TRISERT-VGN Foliar Fertilizer Solution 9-6-8 provides nitrogen, phosphorous, and potassium for a wide variety of crops and ornamentals.

TRISERT-VGN's nitrogen is from low-biuret urea and the unique slow-release nitrogen, *triazone* (33% SRN), known for its crop safety, superior absorption and efficient translocation and remobilization within the plant.

TRISERT-VGN's phosphorous and potassium are derived from tetrapotassium pyrophosphate (TKPP), a high quality, soluble source of P and K ideally suited for foliar application.

The slow-release *triazone* nitrogen in TRISERT-VGN aids in the absorption of phosphorous and potassium needed to enable your crop to reach its quality and yield potential.

TRISERT-VGN was developed for the supplemental foliar feeding of all crops, including those crops experiencing stressful growing conditions.

TRISERT-VGN may be applied by either ground or air and in conjunction with a crop protection chemical application.

#### **KEEP OUT OF REACH OF CHILDREN**

#### **CAUTION - MAY CAUSE IRRITATION**

#### **PRECAUTIONARY STATEMENTS:**

Avoid prolonged or repeated contact with eyes, skin and clothing. Chemical goggles or a full face shield should be worn. To protect skin wear appropriate protective equipment, such as rubber or plastic aprons, rubber gloves and boots. Avoid breathing mist or vapor. Keep containers closed. Wash thoroughly after handling. May cause gastro-intestinal distress, if swallowed.

#### **HANDLING AND STORAGE:**

Minimize skin exposure. Store mini-bulks and smaller containers out of sun in an area of moderate temperature. Do not re-use containers. Avoid containers, piping or fittings made of copper-containing alloys or galvanized metal. Dispose of containers in accordance with local regulations and requirements.

#### **FIRST AID:**

In case of contact with eyes, immediately flush eyes with water for at least 15 minutes. Seek immediate medical attention if irritation occurs. In case of skin contact, flush skin with water. If irritation occurs, seek immediate medical attention. Remove and wash contaminated clothing before reuse. If swallowed give large amounts of water and induce vomiting by touching back of throat with finger unless unconscious. Seek immediate medical attention.

#### **IN CASE OF SPILL:**

Contain spill and maximize recovery. Keep spill out of water sources. Exercise caution in area of spill for slippery conditions. Dispose of spilled material in accordance with regulatory requirements.

#### **PHYTOTOXICITY:**

Plant and leaf injury may occur on some crops when certain weather and growing conditions are present.

Before handling this product, consult the Material Safety Data Sheet for handling, safety and first aid information.

Follow directions carefully, including precautions for safe handling.

#### **DIRECTIONS FOR USE**

TRISERT-VGN may be applied as a foliar spray application on all field and specialty crops to enhance growth and quality, correct nutritional deficiencies and help plants rebound from stressful conditions.

TRISERT-VGN may be applied as a concentrate or dilute solution by ground or aerial application. Apply with sufficient water to achieve adequate plant coverage especially during periods of low humidity and high temperature to achieve the maximum benefit of foliar fertilization.

TRISERT-VGN is physically compatible with most crop protection chemicals. In the absence of published data Tessenderlo Kerley, Inc. recommends testing for compatibility in all spray combinations by a simple jar test with appropriate concentrations. Care should be taken not to blend TRISERT-VGN with highly acidic materials and materials containing a high level of free ammonia.

### SUGGESTED APPLICATION RATES

<u>VEGETABLES</u>	<u>RATE</u> (QTS/ACRE)	<u>TIME OF APPLICATION</u>
Asparagus	6 - 10	At mid-fern development, then at 14 to 21 day intervals.
Beans (dry) multiple application	2 - 4	Apply late bud and early bloom.
Beans (green, lima)	4 - 6	Early flower and repeat in 7 to 10 days.
Broccoli	6 - 10	First application after thinning, then 3 weeks before head formation and repeat in 7 to 10 days.
Cabbage	6 - 10	First application after thinning, then early head formation and repeat after 14 to 21 days.
Cantaloupes	6 - 10	Early flowering and repeat 7 to 10 days later.
Carrots	4 - 6	When plants are 3 to 6 inches tall, repeat at three week intervals or as required.
Cauliflower	6 - 10	First application after thinning or transplant, other applications at early head set and repeat at 10 to 14 day intervals.
Celery	4 - 6	When plants are 8 to 12 inches tall and repeat at 10 to 14 day intervals.
Corn (sweet)	4 - 6	When plants are 12 to 24 inches high, then at tassel emergence and repeat after pollination.
Cucumbers single application	10 - 16	Early fruit set.
multiple application	4 - 6	Early flower and repeat at 10 to 14 day intervals.
Eggplant	4 - 6	At bud stage and repeat at 10 to 14 day intervals.
Lentils	2 - 4	Apply late bud stage, early bloom. Repeat every 7 days through pod set.
Lettuce	4 - 6	After thinning, then at early head formation and repeat at 10 to 14 day intervals.
Okra	4 - 6	At bud stage and repeat at 10 to 14 day intervals.
Onions	2 - 6	Mid-set development and repeat at 14 to 21 day intervals.
Peas (dry)	2 - 6	Apply late bud stage, early bloom.
Peas (green/fresh)	2 - 6	Apply late bud stage, early bloom. Repeat every 7 days through pod set.
Peppers	4 - 6	Early fruit set and repeat at 10 to 14 day intervals.
Spinach	6 - 10	When sufficient foliage is present and repeat at 14 to 21 days.
Squash	6 - 10	Early fruit set and repeat at 10 to 14 day intervals.

### VEGETABLES

	<u>RATE</u> (QTS/ACRE)	<u>TIME OF APPLICATION</u>
Tomatoes (Process) single application	10	Apply 10 to 14 days after full bloom.
multiple application	4 - 6	At full bloom and repeat at 10 to 14 day intervals until 2 weeks before harvest.
Tomatoes (Fresh) single application	10	Apply 10 to 14 days after full bloom.
multiple application	4 - 6	At full bloom and repeat at 10 to 14 day intervals until harvest is near completion.
Watermelons	6 - 10	Early flowering and repeat in 7 to 10 days.
Other Crops	4 - 6	When sufficient foliage is present, try on a small area until more experience and trials have been completed to determine if higher rate is desirable.

### FERTIGATION

SPRINKLER IRRIGATION - Beginning at the 3rd to 4th leaf stage, apply 2 to 5 gallons per acre per application every 10 to 14 days based on crop requirements.

DRIP IRRIGATION - Apply 1 to 5 gallons per acre per application 3 to 6 times during the growing season as needed.

### FRUITS & NUTS

	<u>RATE</u> (QTS/ACRE)	<u>TIME OF APPLICATION</u>
Almonds	6 - 10	Full leaf. Repeat at early nut expansion.
Apples	2 - 4	Apply in a minimum of 100 gallons of water per acre. For best results apply from pink through second or third cover spray.
Apricots	2 - 4	Prior to fruit set.
Blueberries	6 - 10	Early fruit set and repeat at early fruit color.
Caneberries	4 - 6	Prior to fruit set.
Cherries	2 - 4	Apply in a minimum of 100 gallons of water per acre. For best results apply from full bloom to fruit formation.
Citrus	6 - 10	Early bloom and repeat after fruit set.
Winter Rate	12 - 30	Apply in mid-January and repeat as necessary.
Cranberries	4 - 6	Hook stage and repeat after fruit set.
Filberts single application	10 - 16	Early nut filling.
multiple application	4 - 6	Early leaf expansion and repeat at 14 to 21 day intervals.

<b>FRUITS &amp; NUTS</b>	<b>RATE</b> (QTS/ACRE)	<b>TIME OF APPLICATION</b>
Grapes		
Table	2 - 4	Prior to fruit set.
Raisin	2 - 4	When sufficient foliage is present. Repeat as needed.
Wine	2 - 4	When sufficient foliage is present. Repeat as needed.
Olives	4 - 6	Early fruit development and repeat as needed.
Peaches - Nectarines	6 - 10	Prior to fruit set.
Pears	4 - 6	Prior to fruit set or post-harvest.
Pecans	4 - 6	Full leaf. Repeat at early nut expansion.
Plums	6 - 10	Prior to fruit set.
Prunes	2 - 4	Full leaf. Repeat as needed.
Strawberries	2 - 3	Early flowering and repeat every 14 days through harvest. Initiate fall application when new growth reaches 3 inches in height.

TRISERT-VG may be applied in a concentrate spray (50 to 100 gallons of water) or dilute spray (200 to 400 gallons of water). Contact your local dealer on dilution rates less than 50 gallons per acre.

### **FERTIGATION**

SPRINKLER IRRIGATION - Apply 2 to 5 gallons per acre per application every 10 to 14 days based on crop requirements.

DRIP IRRIGATION - Apply 1 to 5 gallons per acre per application 3 to 6 times during the season when roots are actively growing as needed.

<b>FIELD CROPS</b>	<b>RATE</b> (QTS/ACRE)	<b>TIME OF APPLICATION</b>
Alfalfa	4 - 6	Apply after each cutting when sufficient foliage is present.
Canola	2 - 4	Apply just prior to bolting.
Corn		
Field	4 - 6	When plants are 12 to 24 inches tall, then at tassel emergence and repeat after pollination.
Seed	4 - 6	Before detasseling and repeat after pollination.
Cotton		
Seedling	3 - 4	After first true leaves appear.
After seedling stage	2 - 4	May be applied in combination with crop protection chemicals and growth regulators.
Boll development	4 - 12	Early boll formation and repeat at 14 to 21 day intervals.
Flax	6 - 10	Early boll development.
Grain Sorghum	4 - 6	After pollination.
Grass Seed Production	10 - 16	Seed head elongation.
Hops	4 - 6	Before cone development.

<b>FIELD CROPS</b>	<b>RATE</b> (QTS/ACRE)	<b>TIME OF APPLICATION</b>
Peanuts		
single application	10 - 16	Early pod development.
multiple application	4 - 6	Early bloom and repeat at 14 to 21 day intervals until pods are filled.
Potatoes		
multiple application	2 - 6	Apply at tuber initiation through bulking. Repeat as needed.
Rice	6 - 10	Panicle initiation. Repeat as required.
Small Grains	6 - 10	Tiller to seed head formation.
Soybeans	4 - 6	Early flower and repeat in 14 to 21 days.
Sugar Beets	10	Apply at 10 to 12 leaf and repeat at 20 leaf stage.
Sunflower	4 - 6	When outer seeds start to fill, repeat in 10 to 14 days.
Sweet Potatoes	4 - 6	Tuber initiation and repeat at 10 to 14 day intervals.
Tobacco	6 - 10	Plant bed stage to near maturity as needed to maintain crop growth and quality.

### **FERTIGATION**

CENTER PIVOT - Apply 3 to 5 gallons per acre per application as needed based on crop requirements.

DRIP IRRIGATION - Apply 3 to 5 gallons per acre per application 3 to 6 times during the growing season as needed.

SPRINKLER IRRIGATION - Beginning at the 3rd to 4th leaf stage, apply 3 to 5 gallons per acre per application every 10 to 14 days based on crop requirements.

### **CHRISTMAS TREES, ORNAMENTAL AND NURSERY STOCK.**

<b>FOLIAR</b>	<b>RATE</b> (QTS/ACRE)	<b>TIME OF APPLICATION</b>
	4 - 6	When sufficient foliage is present. Ornamental and nursery stock vary widely in growth habit and leaf texture. Some varieties are more susceptible to leaf or tip burn than others. It is recommended that the user apply a diluted solution to a few plants and observe for a week before general applications are made.

TRISERT-VGN may be applied in a concentrate spray (50 to 100 gallons of water) or dilute spray (200 to 400 gallons of water) per acre. Contact your local dealer on dilution rates less than 50 gallons per acre.

A rate of 6 qts./acre is equivalent to 4.41 oz./1000 square foot.

**GREENHOUSE GROWN PLANTS**

**CONTAINERS, FLATS AND HOUSEPLANT MATERIAL:** Mix 20 to 30 ounces in 100 gallons of water applied as a normal watering (approximately 1 qt./ sq. ft.) every 7 to 14 days, or as plants or soil tests indicate.

**FOLIAGE FEEDING OF ALL MATERIALS:** Mix 2 to 5 ounces of TRISERT-VGN per gallon of spray solution. Apply to run off: Use the lower rate for sensitive plant foliage. It is recommended in the absence of published recommendations, the grower apply to a small number of plants first, wait 3 to 5 days and observe plant health before making a general application.

**TRANSPLANTING VEGETABLE PLANTS, FLOWER PLANTS, ROSE BUSHES, SHRUBS & TREES:** Apply 10 to 15 ounces in 50 gallons of spray solution and water in thoroughly.

**WARRANTY AND LIMITATION OF DAMAGES**

Tessenderlo Kerley, Inc. warrants only that this product conforms to the product description on the label. Tessenderlo Kerley, Inc. makes no representation or warranty or guarantee, whether expressed or implied, disclaims any warranty of fitness for a particular purpose of merchantability, or of product performance. Tessenderlo Kerley, Inc. does not authorize any agent or representative to make any such representation, warranty or guarantee. Tessenderlo Kerley, Inc.'s maximum liability for breach of its warranty or for use of this product, regardless of the form of action, shall not exceed the purchase price of this product. Buyer and user acknowledge and assume all risks and disposal liability resulting from handling, storage, use and disposal of this product, whether in accordance with directions or not. If buyer does not agree with or accept these warranty and liability limitations, buyer may return the unopened container to the place of purchase for full refund. Some states do not allow the exclusion of implied warranties or the limitation of certain damages, so the above may not apply. The purchase, delivery, acceptance and use of this product by the buyer is subject to the terms and conditions of seller's sales invoice for this product.

**TECHNICAL DATA INFORMATION**

**PLANT NUTRIENT CONTENT**

Total Nitrogen (N),	9.0
Available Phosphoric Acid (P <sub>2</sub> O <sub>5</sub> )	<b>% by Wt.</b>
Souble Potash (K <sub>2</sub> O)	8.0

Tessenderlo KERLEY Inc.  
 P.O. Box 15627  
 Phoenix, AZ 85060  
 602-889-8300  
 800-525-2803 - West of Rockies  
 800-367-9986 - East of Rockies

**TYPICAL DISTRIBUTION OF NITROGEN FORMS, % OF TOTAL N**

Slow-release Nitrogen (SRN)	33
From Triazone Compounds	31
From Other N Compounds	2
Urea N	67

TRISERT is the registered trademark of  
 Tessenderlo KERLEY Inc.

**TYPICAL PROPERTIES**

Specific Gravity, 60° /60°F	1.210
pH	9.7
Salting-Out Temperature, °F	14
Appearance	Clear, Lt. Blue

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**FORMULATION AND APPLICATIONS FACTORS**

Density, Lbs/Gallon (60°F)	10.1
Volume, Gallons/Ton (60°F)	198

	N	P <sub>2</sub> O <sub>5</sub>	K <sub>2</sub> O
Pounds Nutrient / gal TRISERT-VGN	0.9	0.6	0.8
Gallons TRISERT-VGN for one lb.	1.09	1.64	1.23