

IgniteS² Crop Application Guide

IgniteS² may be applied to the soil, seed and plant foliage. Total applications of 32–48 oz./acre are typical for field crops, with 16 oz./acre of **IgniteS²** applied broadcast or in-furrow at planting, followed by additional applications applied to plant foliage at 16 oz./acre each. If only one foliar application is made, rates up to 32 oz./acre may be used.

IgniteS² can be applied through standard ground or aerial application equipment and properly equipped irrigation systems.

IgniteS² is formulated for use on ALL crops.

Field Crop Usage

The applications listed may be applied in conjunction with corresponding conventional liquid fertilizer, herbicide, fungicide or insecticide applications. As with any agrichemical, do a compatibility check to insure proper mixing with other products.

DIRECTIONS FOR USE: **IgniteS²** may be applied by ground, air or through properly equipped irrigation and fertigation systems. If applied by air, it is recommended to use 5-10 gallons of water per acre. If applied by ground it is recommended to use 10–20 gallons of water per acre.

COMPATIBILITY: **IgniteS²** is a stable product with excellent tank mixing characteristics. It can be applied in conjunction with most herbicides, insecticides, fungicides and foliar fertilizers. A jar test is recommended prior to tank mixing. These products are not a replacement for a regular fertilizer program. Soil sample and tissue test regularly, and use **IgniteS²** in conjunction with good fertility practices.

WHEAT, CANOLA & OTHER SMALL GRAINS

Apply **IgniteS²** as a seed coating prior to planting with enough undiluted product to make seed damp to the touch, approximately 8 oz. per bushel. Then let dry before plant. Make an in-furrow 16 oz. application per acre at planting. If an in-furrow or seed treatment is not used, soil apply 16–32 oz. per acre with preplant or preemerge chemicals.

Apply 16–24 oz. per acre of **IgniteS²** prior to jointing.

Apply 16–24 oz. per acre ^[L]_[SEP] of **IgniteS²** at the flag leaf stage. (If no seed coating is used, apply 32 oz. per acre of **IgniteS²** at the flag leaf stage.)

COTTON

Make an in-furrow application of **IgniteS²** at planting of 16 ^[L]_[SEP] oz. per acre. If an in-furrow treatment is

not used, soil apply 16–32 oz. per acre with preplant or preemerge chemicals.

Apply 16 oz. per acre of **IgniteS²** at the 3–7 leaf stage.

Apply 16 oz. per acre of **IgniteS²** at pinhead square stage.

Apply 16 oz. per acre of **IgniteS²** at early bloom.

TOBACCO

Apply 16 oz. of **IgniteS²** per 100 gallons of transplant setting water.

Apply 16–32 oz. per acre of **IgniteS²** with preplant herbicide.

Apply 16 oz. per acre of **IgniteS²** with each foliar spray made with liquid fertilizer or insecticide.

SOYBEANS

Make an in-furrow application of **IgniteS²** at planting of 16 ^[1]_[SEP]oz. per acre. If an in-furrow application is not used, soil apply 16–32 oz. per acre of **IgniteS²** with preplant or preemerge chemicals.

Apply 16–32 oz. per acre of **IgniteS²** at the 3-5 trifoliolate leaf stage.

Apply a second application of 16–32 oz. per acre of ^[1]_[SEP] **IgniteS²** at pre-bloom to pod set. (If an in-furrow application is not used, apply 32 oz. per acre of **IgniteS²** prior to bloom.)

CORN AND GRAIN SORGHUM

Apply **IgniteS²** as a seed coating prior to planting with enough undiluted product to make seed damp to the touch, approximately 6-8 oz. per 50 lb. bag. Then let dry or make an in-furrow application at planting of 16oz.peracre. If an in-furrow or seed treatment is not possible, soil apply 16–32 oz. per acre of **IgniteS²** with preplant or preemerge chemicals.

Apply 16–24 oz. per acre of **IgniteS²** at the 3-5 leaf stage.

Apply 16–24 oz. per acre of **IgniteS²** at any time from pre-tassel until pollination has completed.^[1]_[SEP]

RICE

Apply **IgniteS²** as a seed coating prior to planting with enough undiluted product to make seed damp to the touch, approximately 8 oz. per bushel. Then let dry or make an in-furrow application at planting of 16 oz. per acre. If an in-furrow or seed treatment is not possible, soil apply 16–32 oz. per acre with preplant or preemerge chemicals.

Apply 16–32 oz. per acre^[1]_[SEP] of **IgniteS²** when the^[1]_[SEP] rice seedling has 3 fully emerged leaves but before the seedling has completed development of 7 leaves or 3 tillers.

To boost yields and stimulate cell differentiation, apply **IgniteS²** at the rate of 16–32 oz. per acre immediately after internode elongation or joint movement has begun.

SUNFLOWERS AND OILSEEDS

Make an in-furrow application of **IgniteS²** at planting of 16^[17]_[SEP] oz. per acre. If an in-furrow treatment is not possible, soil apply 16–32 oz. per acre with preplant or pre-emerge chemicals.

Apply 16 oz. per acre of **IgniteS²** at 4–8 inches in growth.

Apply 16 oz. per acre of **IgniteS²** at flowering stage.

PEANUTS / GOUNDNUTS

Make an in-furrow application of **IgniteS²** at planting of 16^[17]_[SEP] oz. per acre. If an in-furrow treatment is not possible, soil apply 16–32 oz. per acre with preplant or preemerge chemicals.

Apply 16 oz. per acre of **IgniteS²** at the 3–5 leaf stage.

Apply 16 oz. per acre of **IgniteS²** at initial pegging.

Apply 16 oz. per acre of **IgniteS²** 10–14 days after the second foliar application.

Apply 16 oz. per acre of **IgniteS²** during pod fill.

ALFALFA, HAY AND

FORAGE CROPS

Apply **IgniteS²** as a seed coating prior to planting with enough undiluted product to make seed damp to the touch, approximately 8 oz. per 50 lb. bag. Then let dry or make an in-furrow application at planting of 16 oz. per acre. If an in-furrow or seed treatment is not possible, soil apply 16–32 oz. per acre broadcast with preplant or preemerge chemicals.

Apply 16–32 oz. per acre of **IgniteS²** in the spring as soon as growth begins and continue applying^[17]_[SEP] 16 oz. per acre 7-10 days after each cutting or heavy grazing.

Vegetable Usage

The applications listed may be applied in conjunction with corresponding conventional liquid fertilizer, herbicide, fungicide or insecticide applications.

DIRECTIONS FOR USE: **IgniteS²** may be applied by ground, air, or through properly equipped irrigation and fertigation systems. If applied by air it is recommended to use 5-10 gallons of water per acre. If applied by ground it is recommended to use 10–20 gallons of water per acre.

COMPATIBILITY: **IgniteS²** are stable products with excellent tank mixing characteristics. They

can be applied in conjunction with most herbicides, insecticides, fungicides and foliar fertilizers. A jar test is recommended prior to tank mixing. These products are not a replacement for fertilizer. Soil sample regularly and use **IgniteS²** in conjunction with good fertility practices.

EDIBLE BEANS -- GREEN, LIMA, DRY, SNAP, PINTOS, BLACK TURTLES, MARROWFATS, GREAT NORTHERN, NAVY, YELLOW EYES, KIDNEY, GARBANZO & SEED

1. Make an in-furrow application of **IgniteS²** at planting of 16 oz. per acre. If an in-furrow treatment is not possible, soil apply 16–32 oz. per acre with preplant or pre-emerge chemicals. ^[1]_[SEP]
2. Apply 16–32 oz. per acre of **IgniteS²** when the first trifoliolate is unfolded. ^[1]_[SEP]
3. Apply 16–32 oz. per acre of **IgniteS²** 2 weeks after step 2. ^[1]_[SEP]
4. Apply 16–32 oz. per acre of **IgniteS²** at first bloom. ^[1]_[SEP]

BROCCOLI, CAULIFLOWER, CABBAGE, LETTUCE & SPINACH ^[1]_[SEP]

1. Make an in-furrow application of **IgniteS²** at planting of 16 oz. per acre. If an in-furrow treatment is not possible, soil apply 16–32 oz. per acre with preplant or pre-emerge chemicals.
2. Apply 16-32 oz. per acre of **IgniteS²** when 4–6 true leaves are formed.
3. Apply 16-32 oz. per acre of **IgniteS²** 2 weeks after Step 2.
4. Apply 16-32 oz. per acre of **IgniteS²** 2 weeks after Step 3.

*NOTE: To maximize yields, make continuous applications of 16 oz. per acre of **IgniteS²** at 7–10 day intervals after the first application throughout the growing season.*

CANTALOUPE, PUMPKINS, WATERMELON, HONEYDEW, CUCUMBER AND SQUASH

1. Make an in-furrow application of **IgniteS²** at planting of 16 oz. per acre. If an in-furrow treatment is not possible, soil apply 16–32 oz. per acre with preplant or pre-emerge chemicals.
2. Apply 16-32 oz. per acre of **IgniteS²** when the 3rd leaf begins to unfold.
3. Apply 16-32 oz. per acre of **IgniteS²** 2–3 weeks after Step 2.
4. Apply 16-32 oz. per acre of **IgniteS²** 2–3 weeks after Step 3.

*NOTE: To maximize yields, make continuous applications of 12–16 oz. per acre of **IgniteS²** at 7–10 day intervals after the first application throughout the growing season.*

PEPPER, TOMATO, EGGPLANT & OKRA

Make an in-furrow application of **IgniteS²** at planting of 16 oz. per acre. If an in-furrow treatment is

not possible, soil apply 16–32 oz. per acre with preplant or pre-emerge chemicals.

Apply 16-32 oz. per acre of **IgniteS²** when the plant has 3–4 true leaves.

Apply 16-32 oz. per acre of **IgniteS²** at first bloom.

Apply 16-32 oz. per acre of **IgniteS²** at first fruit set.

*NOTE: To maximize yields, make continuous applications of 12–16 oz. per acre of **IgniteS²** at 7–10 day intervals after the first application throughout the growing season.*

SWEET CORN AND POPCORN

Apply **IgniteS²** as a seed coating prior to planting with enough undiluted product to make seed damp to the touch, approximately 6-8 oz. per 50 lb. bag. Then let dry or make an in-furrow application at planting.

of 16 oz. per acre. If an in-furrow or seed treatment is not possible, soil apply 16–32 oz. per acre of **IgniteS²** with pre-plant or pre-emerge chemicals.

Apply 16-32 oz. per acre of **IgniteS²** when plants are in the 4–6 leaf stage.

Apply 16-32 oz. per acre of **IgniteS²** at the 8–10 leaf state.

POTATOES

Make an in-furrow application of **IgniteS²** at planting of 16 oz. per acre. If an in-furrow treatment is not possible, soil apply 16–32 oz. per acre with pre-plant or pre-emerge chemicals.

Apply 16-32 oz. per acre of **IgniteS²** at tuber initiation (approx. 4–6 weeks after emergence.)

Apply 16-32 oz. per acre of **IgniteS²** at pre-bloom stage.

Apply 16-32 oz. per acre of **IgniteS²** during bloom.

SWEET POTATO

Treat slips prior to transplanting with a 2% solution of **IgniteS²**.

Apply 16–32 oz. per acre of **IgniteS²** to beds prior to or during transplanting.

Apply 16-32 oz. per acre of **IgniteS²** after 3rd new leaf.

Apply 16-32 oz. per acre of **IgniteS²** at pre-bloom stage.

Apply 16-32 oz. per acre of **IgniteS²** during bloom.

Fruit and Nuts Usage

The applications listed may be applied in conjunction with corresponding conventional liquid fertilizer, herbicide, fungicide or insecticide applications.

DIRECTIONS FOR USE: **IgniteS²** may be applied by ground, air, or through properly equipped irrigation and fertigation systems. If applied by air it is recommended to use 5-10 gallons of water per acre. If applied by ground it is recommended to use 10–20 gallons of water per acre.

COMPATIBILITY: **IgniteS²** are stable products with excellent tank mixing characteristics. They can be applied in conjunction with most herbicides, insecticides, fungicides and foliar fertilizers. A jar test is recommended prior to tank mixing. These products are not a replacement for fertilizer. Soil sample regularly and use **IgniteS²** in conjunction with good fertility practices.

STRAWBERRIES

Apply 24–32 oz. per acre of **IgniteS²** as soon as there is sufficient foliage to absorb spray.

Apply 24–32 oz. per acre of **IgniteS²** at first bloom stage.

Apply 24–32 oz. per acre of **IgniteS²** at fruit set.

NOTE: Sprays can continue every 14 days through harvest.

BERRY BUSHES AND VINES

Apply 16–32 oz. per acre of **IgniteS²** at leaf initiation.

Apply 16–32 oz. per acre of **IgniteS²** at early bloom stage.

Apply 16–32 oz. per acre of **IgniteS²** at late petal fall.

Apply 16–32 oz. per acre of **IgniteS²** at fruit set.

MANGO

Apply 16-32 oz. per acre ^{SEP} of **IgniteS²** at pre-pruning

Apply 16-32 oz. per acre of **IgniteS²** 30 days later

Apply 16-32 oz. per acre of **IgniteS²** 30 days after induction period

Apply 16-32 oz. per acre of **IgniteS²** 30 days after fruit setting.

ALMONDS, PISTACHIO, PECANS, WALNUTS AND OTHER TREE NUTS

Apply 16–32 oz. per acre of **IgniteS²** at early bloom.

Apply 16–32 oz. per acre of **IgniteS²** every 4–6 weeks until after nut fall.

CITRUS & AVOCADOS

Apply 16–32 oz. per acre of **IgniteS²** pre-bloom.

Apply 16–32 oz. per acre of **IgniteS²** at full bloom – 2/3 petal fall.

Apply 16–32 oz. per acre of **IgniteS²** when fruit is approximately 1/2 inch in diameter.

PEACHES, NECTARINES, APRICOTS & CHERRIES

Apply 16–32 oz. per acre of **IgniteS²** at pre- to early bloom stage.

Apply 16–32 oz. per acre of **IgniteS²** at petal fall.

Apply 16–32 oz. per acre of **IgniteS²** at young fruit stage.

PLUMS & PRUNES

Apply 16–32 oz. per acre of **IgniteS²** at white bud stage.

Apply 16–32 oz. per acre of **IgniteS²** at early bloom.

Apply 16–32 oz. per acre of **IgniteS²** at petal fall.

Apply 16–32 oz. per acre of **IgniteS²** at fruit set.

APPLES & PEARS

Apply 16–32 oz. per acre of **IgniteS²** at green growth (tight cluster) stage.

Apply 16–32 oz. per acre of **IgniteS²** at pre- bloom stage.

Apply 16–32 oz. per acre of **IgniteS²** at half bloom stage.

Apply 16–32 oz. per acre of **IgniteS²** at 3/4 petal fall.

Apply 16–32 oz. per acre of **IgniteS²** at young fruit stage.

PINEAPPLE

Apply 32 oz. per acre^{[L]_{SEP}} of **IgniteS²** with the first fertilization

Apply 32 oz. per acre^{[L]_{SEP}} of **IgniteS²** every 30 days until induction period

May apply product with post-emergent herbicides and/or fungicides.

DATES, FIGS, OLIVES, PERSIMMONS & POMEGRANATES^{[L]_{SEP}}

Apply 16–32 oz. per acre of **IgniteS²** during pink bud stage.

Apply 16–32 oz. per acre of **IgniteS²** every 2–3 weeks up to harvest.

WINE, TABLE GRAPES & KIWIFRUIT

Apply 16–32 oz. per acre of **IgniteS²** at the start of spring growth.

Apply 16–32 oz. per acre of **IgniteS²** at pre- bloom stage.

Apply 16–32 oz. per acre of **IgniteS²** at fruit set.

COFFEE

Apply 16-32 oz. per acre of **IgniteS²** prior to first fertilization of year and/or at first rainfall.

Apply 16-32 oz. per acre of **IgniteS²** prior to second fertilization. May divide this into 2 applications: 16 oz./acre with second fertilization, and 8 oz./acre with the fungicide application.

Turf and Ornamental Crops

The applications listed may be applied in conjunction with corresponding conventional liquid fertilizer, herbicide, fungicide or insecticide applications. As with any agricultural chemical, do a compatibility check to insure proper mixing with other products.

DIRECTIONS FOR USE: **IgniteS²** may be applied by ground, air or through properly equipped irrigation and fertigation systems. If applied by air, it is recommended to use 5-10 gallons of water per acre. If applied by ground it is recommended to use 10–20 gallons of water per acre.

COMPATIBILITY: **IgniteS²** is a stable product with excellent tank mixing characteristics. It can be applied in conjunction with most herbicides, insecticides, fungicides and foliar fertilizers. A jar test is recommended prior to tank mixing. These products are not a replacement for a regular fertilizer

program. Soil sample and tissue test regularly, and use **IgniteS²** in conjunction with good fertility practices.

TURF GRASSES

Apply 24–32 oz. per acre of **IgniteS²** at time of seeding or when sod is laid.

Apply 24–32 oz. per acre of **IgniteS²** as soon as there is sufficient foliage (new growth or sod) to absorb spray.

Apply 24–32 oz. per acre of **IgniteS²** at 4-week intervals during active growth.

BEDDING PLANTS

Apply 24–32 oz. per acre of **IgniteS²** at time of seeding or transplanting as soil or media drench. For small plantings, use 1-2 oz. per gallon watering solution or foliar mist.

Apply 24–32 oz. per acre of **IgniteS²** as soon as there is sufficient foliage (new growth, 1-2 weeks later) to absorb spray. For small plantings, use 1-2 oz. per gallon watering solution or foliar mist.

Apply 24–32 oz. per acre of **IgniteS²** at 4-week intervals during active growth. For small plantings, use 1-2 oz. per gallon watering solution or foliar mist.

SHRUBS AND PERENNIAL FLOWERING PLANTS

Apply 24–32 oz. per acre of **IgniteS²** as soil drench or foliar application at time of planting.

Apply 24–32 oz. per acre of **IgniteS²** as soil drench or foliar application when new growth appears.

Apply 24–32 oz. per acre of **IgniteS²** at 4-week intervals during active growth as foliar application.

Greenhouse Crops

The applications listed may be applied with corresponding conventional liquid fertilizer, herbicide, fungicide or insecticide applications.

DIRECTIONS FOR USE: **IgniteS²** may be applied to growing media, foliar or through properly equipped irrigation and fertigation systems. If applied foliar application use 2 oz. per 50 gallons of water, applied as a mist.

COMPATIBILITY: **IgniteS²** are stable products with excellent tank mixing characteristics. They can be applied in conjunction with most herbicides, insecticides, fungicides and foliar fertilizers. A jar test is recommended prior to tank mixing. These products are not a replacement for fertilizer. Soil sample regularly and use **IgniteS²** in conjunction with good fertility practices.

BEDDING PLANTS AND VEGETABLE TRANSPLANTS

Apply 24–32 oz. per acre of **IgniteS²** at time of seeding or transplanting as soil or media drench. For

small plantings, use 1-2 oz. per gallon watering solution or foliar mist.

Apply 24–32 oz. per acre of **IgniteS²** as soon as there is sufficient foliage (new growth, 1-2 weeks later) to absorb spray. For open circulating systems use 2 oz. per 25 gal of nutrient solution. For small plantings, use 1-2 oz. per gallon watering solution or foliar mist.

Apply 24–32 oz. per acre of **IgniteS²** at 4-week intervals during active growth. For small plantings, use 1-2 oz. per gallon watering solution or foliar mist.

ORNAMENTAL AND VEGETABLE PRODUCTION

Apply 24–32 oz. per acre of **IgniteS²** at time of seeding or transplanting as soil or media drench. For small plantings, use 1-2 oz. per gallon watering solution or foliar mist.

Apply 24–32 oz. per acre of **IgniteS²** at 4-week intervals during active growth. For small plantings, use 1-2 oz. per gallon watering solution or foliar mist.

HYDROPONICS – ALL CROPS

Apply 32 oz. per 250 gal of nutrient solution in closed circulating systems. For open circulating systems use 2 oz. per 25 gal of nutrient solution. Add new product weekly or whenever solution is changed. Foliar application may be made at 1-2 oz. per gallon of foliar mist.

Nursery Crops - Trees and Shrubs

Apply 24–32 oz. per acre of **IgniteS²** at time of transplanting as soil or media drench.

Apply 24–32 oz. per acre of **IgniteS²** at 4-week intervals during active growing season as foliar application or soil drench.

Apply 24–32 oz. per acre of **IgniteS²** at 4-week intervals prior to early growth as soil drench, and every 4-week intervals as foliar application or soil drench throughout growing season.

Apply 2 oz. per 25 gal of solution as a root drench or dipping at time of digging in preparation for sale and/or transporting.

HOW TO USE IGNITES² FOR RESIDUE MANAGEMENT



You will be ahead of the game next year by applying **IgniteS²** to crop stubble this fall. **IgniteS²** will stimulate an explosion of microbial life in the soil, which in turn, significantly speeds up the decomposition of the crop residue. This increases the amount of available nutrients for next year's crop and also adds valuable organic matter to the soil.

Apply IgniteS² to Help Convert Any Type of

Residue to Humus:

As soon as possible after harvest, apply 1-2 pints of IgniteS² per acre to speed up stalk digestion. Microbes can quickly colonize the more easily digestible inner stalk material. As the fungi, bacteria and actinomycetes multiply, they gradually attack the tough inner cellulose and lignin of the stalk rind. Soil organisms first consume sugars and amino acids in the stalk. Fueled with that energy, they devour starches, proteins, and cellulose. The tough, complex lignin is the last component they attack.

Mix residue into the aerobic zone of your soil. If you have a no-till environment, make sure residue is shredded and spread evenly on the soil with 1-2 pints of IgniteS² sprayed over the top. Under no-till circumstances, fungi typically do more of the digestive work. They look for food above the surface and can thrive on nutrients with a fairly low ratio of nitrogen to carbon. One visible clue to active biological breakdown is the webs of actinomycetes colonizing the residue. These organisms wrap around stalks and nothing washes them off. That rich, earthy odor is another clue that actinomycetes are active.

