

APPLICATION GUIDELINES

ACADIAN[®] Extract Powder for General Use

ACADIAN[®] Powder is exclusively extracted from freshly harvested marine plants from the cold, clean North Atlantic coast of Nova Scotia, Canada. Consistent use of **ACADIAN[®]** extract supplements a well-balanced crop nutrition program. Use **ACADIAN[®]** to increase desirable yield, improve overall plant nutritional health, improve root growth and development, improve plant vigor, and maximize crop potential during periods of stresses. To achieve the desired results, the levels of major and minor nutrients must be adequate to support the increase in production. The following timing and rates of application are recommended for maximum efficacy.

Compatibility: **ACADIAN[®]** Powder is compatible with most insecticides, fungicides and fertilizers. Some pH adjustments may be required with acidic mixtures. Add surfactants after the product has completely dissolved in the tank solution. When mixing with calcium products, thoroughly mix **ACADIAN[®]** Powder with the water in the tank prior to adding the calcium product. If interaction of chemicals is unknown, a "jar" compatibility test is recommended.

Storage and Handling: This product contains a natural preservative but should be stored away from intense sunlight and heat. Avoid spillage as product is very slippery and may create a hazard.

Directions for Use: **ACADIAN[®]** Powder is water-soluble and is suitable for use in liquid foliar, soil applied, and irrigation water applications. **Crop recommendations are provided on the following pages.**

Foliar Applications: Fill half the spray tank with water, begin agitating and gradually add recommended amount of **ACADIAN[®]** Powder with remainder of water and spray solution. Use enough water for good spray coverage. The foliar spray should be applied as a fine mist, with low fluid velocity until the foliage is wet. Do not foliar-apply during times of moisture or heat stress. For best results apply during the cool part of the day or when temperatures are below 85 degrees F. Do not spray just before or after rainfall or sprinkler irrigation. Use a surfactant for maximum dispersal and leaf adherence.

Soil applications: Soil applied treatments can be made by mixing with soil-applied fertility, directed sprays to the soil, sidedress treatments, applications through the irrigation systems or other methods which effectively apply **ACADIAN[®]** Powder to the soil. When making irrigation treatments dilute 1 part **ACADIAN[®]** Powder with at least 5 parts water before adding to the supply tank. Continuous agitation of the supply tank is recommended. **ACADIAN[®]** Powder can be applied through drip, microject, sprinkle, overhead, furrow, flood and other types of irrigation at the suggested rates. For micro sprinkler, solid set or drip irrigation, apply after the system is fully pressurized. Inject for at least one hour following with clean water for at least two hours to clear system of all product. Avoid heavy irrigation following application that may leach material beyond the root system of the crop.

Rooting/Transplant Solution: To encourage root growth of new transplants, treat roots with a solution of **ACADIAN[®]** Powder at the rate of 0.6 to 1.5 dry ounces per 20 gallons of water prior to transplanting.

Post Harvest Application: **ACADIAN[®]** Powder is an excellent way to stimulate root growth and prepare perennial crops for next season's growth. Apply to the soil or foliar using above methods.

ADDITIONAL APPLICATIONS SHOULD BE MADE IMMEDIATELY PRIOR OR FOLLOWING STRESS PERIODS SUCH AS CHILL OR DROUGHT.

GENERAL APPLICATION RATES

CROPS	Dosage per application	General recommendations
Vegetable and Field Crops	1 to 2 lbs of Acadian Powder per acre	Apply Acadian starting at planting with repeat treatments every 7-30 days. Applications can be made either foliar or to the soil. Apply 3-5 days prior to an anticipated plant stress.
Perennial Crops (Trees, Vines, Bushes, etc.)	1 to 4 lbs of Acadian Powder per acre	Apply Acadian starting at regrowth in the spring. Repeat treatments every 7-30 days. At transplanting, a root treatment can be used (see page 1). Post harvest applications can be made every 1-4 weeks from harvest to dormancy. Applications can be made either foliar or to the soil. Apply 3-5 days prior to an anticipated plant stress.

SPECIFIC APPLICATION RATES

Product may be applied either as foliar sprays or to the soil, unless specified. Rates higher than recommended below can be used. Do not exceed 4 lb per acre in a single application for trees and vines; do not exceed 2 lb per acre in a single application for other crops.

FRUIT CROPS	Dosage per application	Best use recommendations
Avocados	1 to 2 lbs of Acadian Powder per acre	1st application: at start of regrowth in the spring 2nd application: 2 weeks pre-bloom 3rd application: 2 weeks after petal fall 4th application: before summer fruit drop Repeat: every 2-4 weeks during summer months Post harvest application: 2-4 weeks after harvest
Bushberries (Blueberry, Currant, Elderberry, Gooseberry, Huckleberry, etc.)	1 to 2 lbs of Acadian Powder per acre	1st application: 4 weeks pre-bloom (soil) 2nd application: 2 weeks pre-bloom 3rd application: petal fall Repeat: every 2-4 weeks during summer months Post harvest application: 2-4 weeks after harvest
Caneberries (Blackberry, Caneberry, Loganberry, Raspberry, etc.)	1 to 2 lbs of Acadian Powder per acre	1st application: at start of growth in the spring 2nd application: 2 weeks pre-bloom 3rd application: petal fall Repeat: every 2-4 weeks during summer months Post harvest application: 2-4 weeks after harvest
Citrus (Grapefruit, Lemons, Limes, Mandarins, Oranges, etc.)	1 to 3 lbs of Acadian Powder per acre	1st application: start of growth in the spring (feather growth) 2nd application: 2 weeks pre-bloom 3rd application: petal fall Repeat: every 2-4 weeks during summer months Fall: May be applied with gibberellin sprays on mid and late season varieties. Post harvest application: 2-4 weeks after harvest

FRUIT CROPS (cont.)	Dosage per application	Best use recommendations
Grapes Wine	1 to 2 lbs of Acadian Powder per acre	1st application: 1-4 inch shoot growth (foliar AND soil) 2nd application: 10-12 inch shoot growth (foliar AND soil) 3rd application: 5 days pre-bloom (foliar) Avoid foliar pre-bloom application in varieties that are prone to under shatter. Use high rate in pre-bloom sprays on varieties that tend to over shatter. 4th application: 'BB' sized berries (2-3 mm) (foliar) 5th application: veraison (foliar AND soil) Repeat: every 2-4 weeks during summer months Post harvest application: 2-4 weeks after harvest
Grapes Table, Raisin and Juice	1 to 2 lbs of Acadian Powder per acre	1st application: 1-4 inch shoot growth (foliar AND soil) 2nd application: 10-12 inch shoot growth (foliar AND soil) 3rd application: 5 days pre-bloom (foliar) Avoid foliar pre-bloom application in varieties that are prone to under shatter. Use high rate in pre-bloom sprays on varieties that tend to over shatter. 4th-6th applications: sizing sprays (foliar) 7th application: veraison (foliar AND soil) Repeat: every 2-4 weeks during summer months Post harvest application: 2-4 weeks after harvest
Kiwi	1 to 2 lbs of Acadian Powder per acre	1st application: at start of growth in the spring 2nd application: 2 weeks pre-bloom 3rd application: petal fall Repeat: every 2-4 weeks during summer months Post harvest application: 2-4 weeks after harvest
Olives	1 to 2 lbs of Acadian Powder per acre	1st application: late winter (foliar) 2nd application: 2 weeks pre-bloom Repeat: every 2-4 weeks, through to harvest Post harvest application: 2-4 weeks after harvest
Figs	1 to 3 lbs of Acadian Powder per acre	1st application: at start of growth in the spring Repeat: every 2-4 weeks. Post harvest application: 2-4 weeks after harvest
Pome Fruits (Apples, Pears and Quince)	1 to 2 lbs of Acadian Powder per acre	1st application: tight cluster 2nd application: pink bud 3rd application: 7-10 days post petal fall 4th application: 1/2-3/4" fruit Repeat: every 2-4 weeks during summer months Post harvest application: 2-4 weeks after harvest
Stone Fruits (Peaches, Nectarines, Apricots, Plums, and Prunes, etc.)	1 to 2 lbs of Acadian Powder per acre	1st application: pink or white bud 2nd application: petal fall Repeat: every 2-4 weeks during summer months Post harvest application: 2-4 weeks after harvest
Cherries	1 to 3 lbs of Acadian Powder per acre	1st application: white bud 2nd application: petal fall to shuck fall 3rd application: exposed young fruit 4th application: straw color May be applied with gibberellin sprays. Avoid sprays after straw-colored fruit on non-gibberellin blocks where early market is desired. Repeat during times of stress

FRUIT CROPS (cont.)	Dosage per application	Best use recommendations
Pomegranate	1 to 3 lbs of Acadian Powder per acre	1st application: start of growth in the spring 2nd application: 2 weeks pre-bloom 3rd application: petal fall Repeat: every 2-4 weeks Post harvest application: 2-4 weeks after harvest
Strawberries	2 lbs of Acadian Powder per acre	Pre-plant: transplant treatment (see page 1) Repeat: soil applications every 14 days until harvest is complete.

VEGETABLES	Dosage per application	Best use recommendations
Asparagus	1 lbs of Acadian Powder per acre	Pre-plant: transplant treatment (see page 1) 1st application: for newly established plants, make a soil or foliar application at emergence Repeat: soil or foliar applications every 14-21 days until harvest is complete.
Brassica Vegetables (Broccoli, Brussels Sprouts, Cauliflower, Collards, Cabbage Kale, and Mustard Greens)	1 to 2 lbs of Acadian Powder per acre	1st application: soil or transplant treatment at planting Repeat: soil or foliar applications every 14-21 days until harvest is complete.
Bulb Vegetables (Garlic, Leeks, Onions, and Shallots)	1 to 2 lbs of Acadian Powder per acre	1st application: soil applied treatment at planting Repeat: soil or foliar applications every 14-21 days until harvest is complete.
Corn Fresh, Sweet, and Pop	1 to 2 lbs of Acadian Powder per acre	1st application: soil treatment at planting Repeat: soil or foliar application at the 12-24 inch stage.
Cucurbit Vegetables (Cantaloupe, Cucumbers, Gourds, Honeydew, Muskmelons, Squash, Pumpkins, and Watermelons)	1 to 3 lbs of Acadian Powder per acre	1st application: soil or transplant treatment at planting Repeat: soil or foliar applications every 14-21 days until harvest is complete.
Fruiting Vegetables (Eggplant, Fresh Tomatoes, Processing Tomatoes, and Peppers)	1 to 2 lbs of Acadian Powder per acre	1st application: soil or transplant treatment at planting Repeat: soil or foliar applications every 14-21 days until harvest is complete. Use adequate water for very good coverage. Minimum 40 GPA for mature plants is recommended.
Leafy Vegetables (Celery, Endive, Lettuce, Radicchio, Rhubarb, Spinach, and Swiss Chard)	1 to 2 lbs of Acadian Powder per acre	1st application: foliar application at the 2-4 leaf stage Repeat: foliar applications every 14-21 days until harvest is complete.

VEGETABLE CROPS (cont.)	Dosage per application	Best use recommendations
Legume Vegetables Fresh, Dry and Processing (Beans, Garbanzos, Lentils, Peas, and Soybeans)	1 to 2 lbs of Acadian Powder per acre	1st application: soil applied treatment at planting Repeat: soil or foliar applications every 14-21 days until harvest.
Potatoes	1 to 2 lbs of Acadian Powder per acre	1st application: soil applied treatment at planting Repeat: soil or foliar applications every 21-30 days until harvest.
Root and Tuber Vegetables (Beets, Carrots, Ginger, Radishes, Sweet Potatoes)	1 to 2 lbs of Acadian Powder per acre	1st application: soil applied treatment at planting Repeat: soil or foliar applications every 14-21 days until harvest.

FIELD CROPS	Dosage per application	Best use recommendations
Alfalfa	2 lbs of Acadian Powder per acre	1st application: soil or foliar application at planting or early season growth Repeat: soil or foliar applications after each cutting or every 3-4 weeks.
Corn Grain, Feed, Forage and Silage	1 to 2 lbs of Acadian Powder per acre	1st application: soil treatment at planting Repeat: soil or foliar application at the 12-24 inch stage.
Cotton	1 to 2 lbs of Acadian Powder per acre	1st application: soil applied treatment at planting Repeat: soil or foliar applications every 7 to 21 days.
Hops	1 to 2 lbs of Acadian Powder per acre	1st application: at start of training in the spring Repeat: every 2 to 4 weeks.
Rice	1 to 2 lbs of Acadian Powder per acre	1st application: at planting with starter fertilizer 2nd application: 30 to 40 days after seeding 2nd application: at early panicle emergence
Wheat	1 to 2 lbs of Acadian Powder per acre	1st application: soil applied treatment at planting Repeat: soil or foliar treatments at the 6 and 12-18 inch growth stage.

NUTS	Dosage per application	Best use recommendations
Almonds	1 to 3 lbs of Acadian Powder per acre	1st application: pink bud 2nd application: petal fall 3rd application: before summer heat stress (late May early June) Repeat: every 2-4 weeks during summer months Post harvest application: 2-4 weeks after harvest
Tree Nuts <i>(Cashews, Pecans, Walnuts, Chestnuts, etc.)</i>	1 to 3 lbs of Acadian Powder per acre	1st application: 1% bloom 2nd application: 30% bloom 3rd application: 2 weeks after previous application Repeat: every 2-4 weeks during summer months Post harvest application: 2-4 weeks after harvest
Pistachios	1 to 3 lbs of Acadian Powder per acre	1st application: at early bud break 2nd application: at bloom 3rd application: fully leafed out Repeat: every 2-4 weeks during summer months Post harvest application: 2-4 weeks after harvest

OTHER	Dosage per application	Best use recommendations
Herbs and Spices	1 to 2 lbs of Acadian Powder per acre	1st application: soil or transplant treatment at planting Repeat: applications every 14-21 days until harvest is complete
Vegetable Seed Crops all varieties	1 to 2 lbs of Acadian Powder per acre	1st application: at planting (soil) Repeat: every 14-21 days. Apply as foliar spray pre-bloom and 7-10 days before beginning "dry down" prior to harvest.
Hydroponic Crops	1.2 to 2.5 dry ounces of Acadian Powder per 100 gallons	Add recommended solution to the fertigation system. Maintain desired ratio when new water is added. Continue to monitor other fertilizer salts in hydroponics solution to ensure total hydroponic solution salinity (Electrical Conductivity, EC) is suitable for each species.