

Application Rates for Growers & Commercial Agriculture

* Rates listed below are for use as a stand alone fertilizer; reduce rates listed above by 60%-80% (depending on quality of soil, water and other environmental conditions) to supplement existing fertilizer program.

Directions for Growers & Commercial Agriculture

1. Agitate (shake well) before adding water. It is important to agitate Organic Gem well to ensure a homogenous product mix, particularly if it has been stored below 32° Fahrenheit.
2. Add water. See "Dilution Rates" below for specific uses. Extra water is not harmful since it acts as a carrier. The amount of water may be adjusted upwards to suit your equipment and the amount of leaf surface on plants.
3. Mix well. After adding water, it is important to agitate (shake well) again.
4. Be sure to use all material that has been mixed with water. Do not store diluted material.
5. Do not apply Organic Gem when soil temperature is below 45° Fahrenheit, as the product will not activate. Apply at (or just before) 45°F is reached in the soil.

Dilution Rates For Growers & Commercial Agriculture

Foliar Applications: Use 1 gallon Organic Gem to 50 gallons of water. Spray after sunset or during the coolest part of the day.

Soil Applications: Use 1 gallon Organic Gem with sufficient water to cover intended area. Minimum dilution rate is 1 part Organic Gem to 15 parts water, sprayed with seed or side-dressed with seed.

Aerial Spraying: Use 1 gallon Organic Gem to 15 gallons water.

Seedlings or Transplants: Dip in a solution of 4 oz. Organic Gem to 1 gallon water, then plant.

Apples	5 gallons per acre foliar at pre-pink or petal fall.	4 gallons per acre 15-21 days after full bloom.	3 gallons per acre foliar 21-30 days later.
Apricots	3-4 gallons per acre foliar at petal fall.	3-4 gallons per acre 15 day later.	Fall ground application.
Asparagus	10 gallons per acre at planting.	15 gallons per acre second year.	20 gallons per acre third year and after.
Barley (dry land)	5 gallon per acre banded with seed.	5 gallons per acre foliar in spring at tilling.	
Barley (irrigated)	10-15 gallons per acre banded with seed.	5 gallons per acre 30 days after emergence.	5 gallons per acre through each 30 days for a total of 30 gallons.
Beans	5 gallons per acre banded with seed.	Up to 5 gallons per acre foliar at pre-bloom.	

Beans (Lima)	5 gallons per acre with seed.	5 gallons per acre foliar at 4th node.	5 gallons per acre at pre-bloom.
Cabbage	5 gallons per acre at planting.	2-3 gallons per acre 3 weeks later.	2-3 gallons per acre foliar 3 weeks later.
Carrots	5 gallons per acre banded with seed at planting.	5 gallons per acre foliar when tops have sufficient foliage.	4 gallons per acre foliar each 30 days for a total of 30 gallons.
Celery	Prepare soil at 10 gallons per acre.	3 applications at 5 gallons per acre during season.	
Cherries	5 gallons per acre between petal fall and shuck.	5 gallons per acre foliar at pit hardening.	5 gallons per acre 15-21 days post harvest.
Clover	5 gallons per acre at planting. No added Nitrogen necessary.		
Cole Crops	5 gallons per acre at planting.	5-7 gallons per acre foliar 3-4 weeks later.	5-7 gallons per acre foliar 3-4 weeks later.
Corn (field)	12-14 gallons per acre banded with seed.	6 gallons per acre foliar 30 days after emergence.	3rd application of 5 gallons per acre.
Corn (sweet)	10 gallons per acre banded with seed.	5 gallons per acre foliar when plants are about 4" tall.	5 gallons per acre foliar when plant is 18"-20" tall.
Cranberries	5 gallon per acre soil preparation.	2 gallon per acre through irrigation system at popcorn.	
	2-3 gallon per acre at hook.	2-3 gallons per acre at fruit set and bud differentiation.	
Cucumbers	5 gallons per acre at planting.	5 gallons per acre foliar 30 days later.	5 gallons per acre foliar 30 days later.
Dry Peas	5 gallons per acre at planting. No extra Nitrogen necessary.		
Evergreens and Ornamentals	5 gallons per acre foliar following last frost.	2-3 gallons per acre foliar after bud hardening.	Third application if necessary. No foliar spraying after late August.
Grapes	Fall ground application of 10 gallons/acre.	Spring application of 5 gallons/acre.	
	Mid season application of 5 gallons/acre.	After harvest and subsequent applications of 5 gallons/acre.	

Grass Seed (irrigated)	10-16 gallons per acre in three applications.		
Grass Seed (dry land)	3 gallons per acre banded at planting.	4-8 gallons per acre in two foliar applications.	
Hemp	2 gal. per acre preplant - ground 2 gal. per acre at planting - ground	2 gal. per acre week 1 - ground 2 gal. per acre wks 3-4 post plant (foliar)	Total of 4 gallons (foliar) during flowering - Spoonfed
Hops	5 gallons per acre to ground in late fall.	5 gallons per acre foliar in May.	5 gallons per acre at pre-bloom.
Lentils	3-5 gallons per acre at planting. No other Nitrogen necessary.		
Malting Barley	3 gallons per acre with seed.	3 gallons per acre foliar at tillering.	
Melons	5 gallons per acre at planting.	5 gallons per acre foliar 30 days later.	5 gallons per acre foliar 30 days later.
Mint	If irrigated, can be applied through sprinkler system during watering cycle. Purge with water at end of cycle.	2-3 gallons per acre in fall, post-harvest.	2-6 gallons per acre per week for a total of 15 gallons per acre, until July 10.
Nectarines	3-4 gallons per acre foliar at petal fall.	3-4 gallons per acre 15 days later.	5 gallons per acre fall ground application recommended.
Oats	3 gallons per acre with seed.	3 gallons per acre foliar at tillering.	
Onions	10 gallons per acre banded with seed.	5 gallon per acre foliar 30 days later.	5 gallon per acre foliar each 30 days for a total of 25-30 gallons.
Ornamentals	5 gallons per acre foliar following last frost.	2-3 gallons per acre foliar after bud hardening.	Third application if necessary. No foliar spraying after late August.
Pasture (dry land)	3-5 gallons per acre foliar per cutting, diluted at 50:1.		
Pasture (irrigated)			
Crop	Condition	Season	Rate - 50:1
Alfalfa	Any	Any	2-3 gal per acre
Alfalfa/Grass	50% grass	Any	4-10 gal per acre
Grass, low yield	Poor	Short	2-6 gal per acre
Pasture (irrigated) - Continued on next page			

Pasture (irrigated)			
Grass, high yield	Poor	Short	4-8 gal per acre
Grass, low yield	Good	D	6-10 gal per acre
Grass, high yield	Good	P	14-20 gal per acre
Grass, low yield	Poor	Long	4-8 gal per acre
Grass, high yield	Poor	Long	8-12 gal per acre
Grass, low yield	Good	Long	10- 18 gal per acre
Grass, high yield	Good	Long	24-30 gal per acre
Peaches	5 gallons per acre foliar at petal fall.	5 gallons per acre 15 days later.	5 gallons per acre fall ground application recommended.
Pears	5 gallons per acre foliar at pre-pink or petal fall.	4 gallons per acre 15-21 days after full bloom.	3 gallon per acre foliar 21-30 days later.
Potatoes	Planting - 10 gallons per acre, banded with seed.	Flower onset - 5 gallons per acre, foliar spray.	
	Tuber enlargement- 5 gallons per acre, foliar spray.	Maturity (vine withers) - 5 gallons per acre, foliar spray.	
Prunes	3-4 gallons per acre foliar at petal.	3-4 gallons per acre 15 days later.	5 gallons per acre fall ground application is desired.
Raspberries, Cranberries, other Berries & Older Plants	5 gallons per acre soil application.	3-4 gallons per acre foliar, when coming out of dormancy.	3-4 gallons per acre starting on 1st of June.
New Plantings	First Year: 4-6 gallons per acre split between banding and foliar feeding.	Second Year: 6-8 gallons per acre in three applications, foliar or ground applied.	
	Third Year: 8-10 gallons per acre split between banding and foliar feeding.	Fourth Year: 10-12 gallons per acre split between banding and foliar feeding.	
Rhubarb	10 gallons per acre at planting to establish plant.	15 gallons per acre second year.	20 gallons per acre third year and after.
Ryegrass (perennial)	3-4 gallons per acre banded with seed.	4 gallons per acre sprayed early September.	8 gallon per acre sprayed 1st of March.
Seed Grasses & Cover Crops	Plant with 3-5 gallons per acre top-dressed or banded.	3-5 gallons per acre each 30 days up to 15 gallon total.	

Spring Wheat	3 gallons per acre with seed.	3 gallons per acre foliar at tillering.	
Squash	5 gallon per acre at plant.	5 gallon per acre foliar 30 days later.	5 gallon per acre foliar 30 days later.
Strawberries	5 gallons per acre foliar at pre-bloom.	5 gallons per acre foliar mid-August for crown building.	5 gallons per acre with new planting.
Sugar Beets	Determine normal yield for the area.	Split applications between banding-with seed and foliar spraying of a maximum of 5 gallons per acre per application.	Use 1 gallon of Organic Gem per ton of product for climate and area. Apply prior to July 1st.
Table Beets	5 gallons per acre banded with seed at planting.	4-6 gallon per acre foliar at two leaves.	4-6 gallon per acre 30 days later.
Tomatoes	5 gallons per acre soil preparation.	5 gallons per acre foliar 3 weeks later.	5 gallons per acre before fruit set.
Vineyards	Fall ground application of 10 gallons/acre.	Spring application of 5 gallons/acre.	
	Mid season application of 5 gallons/acre.	After harvest and subsequent applications of 5 gallons/acre.	
Winter Wheat	5 gallons per acre banded with seed.	5 gallons per acre foliar in spring at tillering.	
Zucchini	5 gallons per acre soil preparation.	5 gallons per acre foliar 30 days later.	5 gallons per acre foliar 30 days later.