



CROP APPLICATION RATES – Pacific Natural Organic Fresh Fish Fertilizer

A dormant season application is highly recommended for all crops and home & garden use, helping the soil to effectively rebuild for the next season. Check sugar (Brix) level of the plant, based on our recommended scale. (P=Poor; A=Average; G=Good; E=Excellent). You'll need a refractometer to measure Brix. Any drop in sugar should be attended to with Pacific Natural. Pacific Natural will help increase sugar in the plant and fruit.

Almonds

Young Trees

1. 12.5 Gals per Acre per Year (with minimum of 5 applications each of 2.5 gallons/acre))
2. Mix concentrate well and dilute at 10 gallons water to 1 gallon Pacific Natural concentrate and apply to ground via drip, sprinkler or spray rig
3. Recommended Timing and Rates of Application
 - Begin first application of 2.5 gal/ac at bud-break and continue applications approx. every every 6 weeks

Mature Trees

1. 12 Gallons Pacific Natural concentrate per Acre per Year (spread over minimum of 3 applications as below)
2. Mix concentrate well and dilute at 10 gallons water to 1 gallon Pacific Natural concentrate and apply to ground via drip, sprinkler or spray rig
3. Recommended Timing and Rates of Applications
 - Mid Spring (early April after catkin or flower set) - 5 Gal / Ac.
 - Early Summer (early June for mid season growth) - 3 Gal / Acre
 - Post Harvest - 4 Gal / Ac.

Brix Levels: P – 4; A – 6; G – 8; E – 10

Apples¹

1. 5 gallons per acre foliar at pre-pink or petal fall.
 2. 4 gallons per acre 15-21 days after full bloom.
 3. 3 gallons per acre foliar 21-30 days later
- Brix Levels: P – 6; A – 10; G – 14; E – 18**

Apricots

1. 3-4 gallons per acre foliar at petal fall.
2. 3-4 gallons per acre 15 day later.
3. Fall ground application, 5 gallons per acre.

¹ For Apple and Cherry Trees – when fresh fish fertilizer is mixed with lime and sulphur, it can be applied for thinning bloom as an effective and environmentally friendlier alternative to chemical thinning.

Brix Levels: P – 6; A – 10; G – 14; E – 18

Asparagus

1. 10 gallons per acre at planting to establish
2. 15 gallons per acre second year.
3. 20 gallons per acre third year and after.

Brix Levels: P – 2; A – 4; G – 6; E – 8

Barley (dry land)

1. 5 gallon per acre banded with seed.
2. 5 gallons per acre foliar in spring at tillering

Brix Levels: P – 6; A – 10; G – 14; E – 18

Barley (irrigated)

1. 10-15 gallons per acre banded with seed.
2. 5 gallons per acre 30 days after emergence
3. 5 gallons per acre through each 30 days for a total of 30 gallons.

Brix Levels: P – 6; A – 10; G – 14; E – 18

Beans

1. 5 gallons per acre banded with seed.
2. Up to 5 gallons per acre foliar at pre-bloom.

Brix Levels: P – 4; A – 6; G – 8; E – 10

Beans (lima)

1. 5 gallons per acre with seed.
2. 5 gallons per acre foliar at 4th node.
3. 5 gallons per acre at pre-bloom.

Brix Levels: P – 4; A – 6; G – 8; E – 10

Blueberries

1. Only foliar, every 10-14 days up to 1 week before harvest, spray to runoff
2. At leaf bud - dilution: 1 part fish to 20 parts water (e.g. 5 Litres fish per 100 L water)
3. After full leaf development – can decrease dilution to 1:10 (e.g. 10 L fish per 100 L water)

Brix Levels: P – 6; A – 8; G – 12; E – 14

Broccoli

Brix Levels: P – 6; A – 8; G – 10; E – 12

Cabbage

1. 5 gallons per acre at planting.
2. 2-3 gallons per acre 3 weeks later.
3. 2-3 gallons per acre foliar 3 weeks later.

Brix Levels: P – 6; A – 8; G – 10; E – 12

Cauliflower

Brix Levels: P – 6; A – 8; G – 10; E – 12

Carrots

1. 5 gallons per acre banded with seed at planting.

2. 5 gallons per acre foliar when tops have sufficient foliage.
 3. 4 gallons per acre foliar each 30 days for a total of 30 gallons.
- Brix Levels: P – 4; A – 6; G – 12; E – 18

Celery

1. Prepare soil at 10 gallons per acre.
 2. 3 applications at 5 gallons per acre during season.
- Brix Levels: P – 4; A – 6; G – 10; E – 12

Cherries¹

1. 5 gallons per acre between petal fall and shuck.
 2. 5 gallons per acre foliar at pit hardening.
 4. 5 gallons per acre 15-21 days post harvest.
- Brix Levels: P – 6; A – 8; G – 14; E – 16

Clover

1. 5 gallons per acre at planting. No added Nitrogen necessary.
- Brix Levels: P – 4; A – 8; G – 16; E – 22

Cole Crops

1. 5 gallons per acre at planting.
 2. 5-7 gallons per acre foliar 3-4 weeks later.
 3. 5-7 gallons per acre foliar 3-4 weeks later.
- Brix Levels: P – 6; A – 8; G – 10; E – 12

Corn (field)

1. 12-14 gallons per acre banded with seed.
 2. 6 gallons per acre foliar 30 days after emergence.
 3. Third application of 5 gallons per acre.
- Brix Levels: P – 4; A – 8; G – 14; E – 20

Corn (sweet)

- *Most climates will require a total of 20 gallons per acre.
1. 10 gallons per acre banded with seed.
 2. 5 gallons per acre foliar when plants are about 4" tall.
 3. 5 gallons per acre foliar when plant is 18"-20" tall.
- Brix Levels: P – 6; A – 10; G – 18; E – 24

Cranberries

1. 5 Gallons/acre at Bud Break (popcorn) through irrigation system
 2. 5 Gallons/acre at Fruit Set
 3. 5 Gallons/acre after harvest
- Brix Levels: P – 6; A – 8; G – 14; E – 16

Cucumbers

1. 5 gallons per acre at planting.
2. 5 gallons per acre foliar 30 days later.
3. 5 gallons per acre foliar 30 days later.

¹ For Apple and Cherry Trees – when fresh fish fertilizer is mixed with lime and sulphur, it can be applied for thinning bloom as an effective and environmentally friendlier alternative to chemical thinning.

Brix Levels: P – 6; A – 8; G – 12; E – 14

Dry Peas

1. 5 gallons per acre at planting. No extra Nitrogen necessary.
Brix Levels: P – 8; A – 10; G – 12; E – 14

Evergreens (and ornamentals) / Christmas Trees

1. 5 gallons per acre foliar following last frost.
2. 2-3 gallons per acre foliar after bud hardening.
3. Third application if necessary. No foliar spraying after late August.

Grapefruit

Brix Levels: P – ; A – ; G – ; E –

Grapes (juice, table and wine)

1. Fall ground application of 10 gallons per acre, depending on soil conditions.
2. 5 gallons per acre mid-season
3. 5-10 gallons per acre after harvest.
Brix Levels: P – 8; A – 12; G – 16; E – 20

Grapes (raisins)

Brix Levels: P – 60; A – 70; G – 75; E – 80

Grass Seed (irrigated)

1. 10-16 gallons per acre in three applications, Foliar

Grass Seed (dry land)

1. 3 gallons per acre banded at planting.
2. 4-8 gallons per acre in two foliar applications.

Hazelnuts

1. 10 gallons per acre after harvest.
2. 2-3 x 3 gallons per acre foliar before husk split.
Brix Levels: P – 4; A – 6; G – 8; E – 10

Hops

1. 5 gallons per acre to ground in late fall.
2. 5 gallons per acre foliar 3 x during growing season.
Brix Levels: P – 8; A – 12; G – 16; E – 20

Kohlrabi

Brix Levels: P – 6; A – 8; G – 10; E – 12

Lentils

1. 3-5 gallons per acre at planting. No other Nitrogen necessary.
Brix Levels: P – 4; A – 6; G – 10; E – 12

Lettuce (Iceberg/Green Leaf/Red Leaf/Romaine)

Brix Levels: P – 4; A – 6; G – 8; E – 10

Malting Barley

- 1. 3 gallons per acre with seed.
 - 2. 3 gallons per acre foliar at tillering.
- Brix Levels: P – 6; A – 8; G – 14; E – 18**

Melons

- 1. 5 gallons per acre at planting.
 - 2. 5 gallons per acre foliar 30 days later.
 - 3. 5 gallons per acre foliar 30 days later.
 - 4. No other nitrogen necessary.
- Brix Levels: P – 8; A – 12; G – 14; E – 16**

Mint

If irrigated, can be applied trough sprinkler system during watering cycle, purge with water at end of cycle.

- 1. Post-Harvest, 2-3 gals per acre in fall.
 - 2. 2-6 gallons per acre per week for a total of 15 gallons per acre, until early July.
- Brix Levels: P – 4; A – 6; G – 8; E – 10**

Nectarines

- 1. 3-4 gallons per acre foliar at petal fall.
 - 2. 3-4 gallons per acre 15 days later.
 - 3. 5 gallons per acre fall ground application recommended.
- Brix Levels: P – 6; A – 10; G – 14; E – 18**

Oats

- 1. 3 gallons per acre with seed.
- 2. 3 gallons per acre foliar at tillering.

Onions

- 1. 10 gallons per acre banded with seed.
 - 2. 5 gallon per acre foliar 30 days later.
 - 3. 5 gallon per acre foliar each 30 days for a total of 25-30 gallons.
- Brix Levels: P – 4; A – 6; G – 8; E – 10**

Pasture (dry land)/Sorghum

- 1. 3-5 gallons per acre foliar per cutting, diluted at 50:1.
- Brix Levels: P – 6; A – 10; G – 22; E – 30**

Pasture (irrigated)/Sorghum

- 1. Foliar or through irrigation system.

Crop	Condition	Season Rate - 50:1
Alfalfa	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
Grass, high yield	Poor	Short	4-8 gal per acre
Grass, low yield	Good	Short	6-10 gal per acre
Grass, high yield	Good	Short	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

Brix Levels: P – 6; A – 10; G – 22; E – 30

Peaches

1. 5 gallons per acre foliar at petal fall.
2. 5 gallons per acre 15 days later.
3. 5 gallons per acre fall ground application recommended.

Brix Levels: P – 6; A – 10; G – 14; E – 18

Pears

1. 5 gallons per acre foliar at pre-pink or petal fall.
2. 4 gallons per acre 15-21 days after full bloom.
3. 3 gallon per acre foliar 21-30 days later.

Brix Levels: P – 6; A – 10; G – 12; E – 14

Peppers (Bell/Hot)

Brix Levels: P – 4; A – 6; G – 8; E – 12

Potatoes

1. Band 10-12 gallons per acre with seed.
2. Tuber formation- tuber form, flower onset: 3 gallons per acre foliar.
3. Tuber enlargement- 3 gallons per acre foliar every other irrigation or spray event
4. Maturity- vine withers: 3 gallons per acre foliar.

Brix Levels: P – 6; A – 8; G – 10; E – 14

Prunes & Plumbs

1. 3-4 gallons per acre foliar at petal.
2. 3-4 gallons per acre 15 days later.
3. 5 gallons per acre fall ground application is desired.

Raspberries (& other caneberries)/Blackberries

Older Plants:

1. 5 gallons per acre soil application
2. 3-4 gallons per acre foliar, when coming out of dormancy.
3. 3-4 gallons per acre starting on 1st of June.

New Planting:

1. First Year: 4-6 gallons per acre split between banding and foliar feeding.
2. Second Year: 6-8 gallons per acre in three applications, foliar or ground applied.
3. Third Year: 8-10 gallons per acre split between banding and foliar feeding.
4. Fourth Year: 10-12 gallons per acre split between banding and foliar feeding.

Brix Levels: P – 6; A – 8; G – 12; E – 14

Rhubarb

1. 10 gallons per acre at planting to establish plant.
2. 15 gallons per acre second year.
3. 20 gallons per acre third year and after.

Ryegrass (perennial)/Sorghum

1. 3-4 gallons per acre banded with seed.
2. 4 gallons per acre sprayed early September.
3. 8 gallon per acre sprayed in Spring.

Brix Levels: P – 6; A – 10; G – 22; E – 30

Seed Grasses, Cover Crops

1. Plant with 3-5 gallons per acre top-dressed or banded.
2. 3-5 gallons per acre each 30 days up to 15 gallon total.

Brix Levels: P – 6; A – 10; G – 22; E – 30

Spring Wheat

1. 3 gallons per acre with seed.
2. 3 gallons per acre foliar at tillering.

Squash

1. 5 gallon per acre at plant.
2. 5 gallon per acre foliar 30 days later.
3. 5 gallon per acre foliar 30 days later.

Brix Levels: P – 6; A – 8; G – 12; E – 14

Strawberries

1. 5 gallons per acre with new planting.
2. 5 gallons per acre foliar at pre-bloom.
3. 5 gallons per acre foliar for crown building.

- 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 Pacific Natural per ton of product for climate and area.

Brix Levels: P – 6; A – 10; G – 14; E – 16

Table Beets

1. 5 gallons per acre banded with seed at planting.
2. 4-6 gallon per acre foliar at two leaves.
3. 4-6 gallon per acre 30 days later.

Brix Levels: P – 6; A – 8; G – 10; E – 12

Tomatoes

1. 5 gallons per acre soil preparation.
2. 5 gallons per acre foliar 3 weeks later.
3. 5 gallons per acre before fruit set.

Brix Levels: P – 4; A – 6; G – 8; E – 12

Walnuts

Young Trees

4. 12.5 Gals per Acre per Year (with minimum of 5 applications each of 2.5 gallons/acre))
5. Mix concentrate well and dilute at 10 gallons water to 1 gallon Pacific Natural concentrate and apply to ground via drip, sprinkler or spray rig
6. Recommended Timing and Rates of Application
 - Begin first application of 2.5 gal/ac at bud-break and continue applications approx. every every 6 weeks

Mature Trees

4. 12 Gallons Pacific Natural concentrate per Acre per Year (spread over minimum of 3 applications as below)
5. Mix concentrate well and dilute at 10 gallons water to 1 gallon Pacific Natural concentrate and apply to ground via drip, sprinkler or spray rig
6. Recommended Timing and Rates of Applications
 - Mid Spring (early April after catkin or flower set) - 5 Gal / Ac.
 - Early Summer (early June for mid season growth) - 3 Gal / Acre
 - Post Harvest - 4 Gal / Ac.

Brix Levels: P – 4; A – 6; G – 8; E – 10

Winter Wheat

1. 5 gallons per acre banded with seed.
2. 5 gallons per acre foliar in spring at tillering.

Brix Levels: P – 6; A – 10; G – 14; E – 18

Zucchini

1. 5 gallons per acre soil preparation.
2. 5 gallons per acre foliar 30 days later.
3. 5 gallons per acre foliar 30 days later.

Brix Levels: P – 6; A – 8; G – 12; E – 14

These are only guidelines we have developed through trials and customer input. It is left to the discretion of the individual to try other applications. We would be grateful for any feedback to keep this guide up to date.

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