

What are Your Plants Telling You About Your Soil?

Your plants are only as healthy as the soil they grow in. Lacking fertility and poor soil health directly results in unhealthy plants and low yields. Soil health should be very important to everyone—from small backyard gardeners to the multi-thousand-acre farmers. To obtain healthy, high yielding plants with the best flavor or highest forage quality, you need to make sure your plants have the fertility and nutrition they require.

Pay Attention to Your Plants

Plants are directly impacted by the health of your soil, making them good indicators of what is going on beneath the surface. Here are a couple of telltale signs that your soil has an issue you need to deal with.

| Pay Attention to Your Plants | |
|---|---|
| Stunted growth and yellowing leaves | possible nitrogen deficiency |
| Reddish/ purple on the tips of the leaves that spreads backwards | possible phosphorous deficiency |
| Tips and edges of leaves turning yellow/ brown, starting at the bottom of the plant and moving upwards | possible potassium deficiency |
| Blossom End Rot in tomatoes, Bitter Pit in apples, and/or low-quality yields that aren't marketable | possible calcium deficiency |
| Discolored upper leaves and new growth | possible micronutrient deficiency, such as manganese or zinc |
| Symptoms of deficiencies when nutrients are known to be present | possible lack of nutrient availability, often resulting from a low-quality biological community in the soil to feed present nutrients to the plants |
| <i>If you notice any of these issues with your plants you need address your soil health!</i> | |



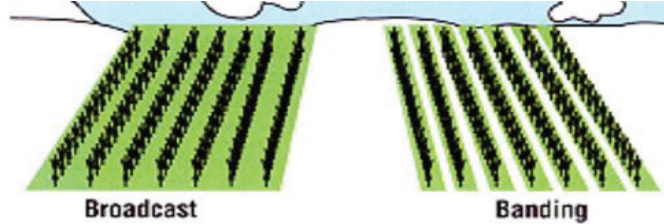
This beautiful property exclusively uses DAIRY DOO products for amazing results!

FERTILIZER GUIDE



Morgan Composting Fertilizer Guide

Key Terms, Definitions, and Conversions



Broadcasted Fertilizer is applied evenly across the field, including the space between the rows. This is preferable when we are making changes to the overall soil profile (pH adjustment, correcting major deficiencies, applying compost, etc). Broadcast applications are generally measured per 100 sq ft. A 10'x10' area is equal to 100 sq ft.

Banded Fertilizer is applied directly in the row, either as single thin band 2-3 inches away from the seed/ stem OR sprinkled evenly over the row, avoiding walkways. Take care not to pile fertilizer around the stem. Banded applications reduce the amount of fertilizer needed and limit weed growth between rows. Banded applications are measured in per 100 row ft, which is equivalent to a 1 foot wide by 100 ft long row.

If you would like to band instead of broadcast or vice-versa, you can use the same rate. 1lb/100 row ft=1lb/100 sq ft.

If you have crops with wide root masses like grape vines, multiply the 100 row ft rate by the estimated root width. For example, if the recommendation is 1lb/100 row ft and you are spreading over a 4ft wide row, you will apply 4lb/100 row ft.

Sidedress: Fertilizer applied midyear, directly in row.

Foliar Fertilizer: Liquid fertilizer applied directly to the plants/leaves. Supplement, NOT a replacement for soil amendments.

To convert from per 100 sq ft to per 1000 sq ft: Multiply by 10 (1lb/100 sq ft x 10 = 10lbs/1000 sq ft).

To convert from per 100 sq ft to per acre: Multiply by 435.6 (1lb/100 sq ft x 435 = 435lbs/acre).

Preplant Fertilizer

A soil test is important in determining preplant fertilizer, ESPECIALLY for new gardens. The following rates assume the soil is well balanced, with no major deficiencies, excesses, or pH imbalances. ***IF YOU COMPLETED A SOIL TEST WITH MORGAN COMPOSTING, THE INCLUDED RECOMMENDATIONS REPLACE THE PREPLANT SECTION OF THIS SHEET AND YOU CAN SKIP TO THE SIDEDRESS SECTION.**

Unamended/Virgin Soil

DAIRY DOO *Preferred 1-1.5 cu ft/100 sq ft (Broadcasting Preferred)

OR

Healthy Garden 7-6-5
OR All Purpose 8-4-4 3lbs/100 sq ft (Broadcasting Preferred)

***IF USING THE HEALTHY GARDEN 7-6-5 OR ALL PURPOSE 8-4-4 RECOMMENDATIONS, USE THE VIRGIN SOIL RECOMMENDATIONS FOR 5 YEARS BEFORE SWITCHING TO THE ESTABLISHED GARDEN RECOMMENDATIONS TO ENSURE ADEQUATE PHOSPHOROUS.**

Well-Balanced/Established Gardens

DAIRY DOO *Preferred 0.3-0.5 cu ft/100 sq ft (Broadcasting Preferred)

NKDoo 10-0-4 *Preferred OR
Granular 8-1-7 2lbs/100 row ft (Banding Preferred)

OR

Healthy Garden 7-6-5
OR All Purpose 8-4-4 2.5lbs/100 sq ft (Broadcasting Preferred)

NKDoo 10-0-4 OR
Granular 8-1-7 0.5lb/100 row ft (Banding Preferred)

***Exceptions for well-balanced/established gardens:**

Onions, potatoes, and parsnips: Double the rate of **DAIRY DOO** OR increase the **HEALTHY GARDEN 7-6-5** or **ALL PURPOSE 8-4-4** by 50% **Established asparagus, snap beans, dill, ginseng, peas, radishes, and sweet potatoes:** Reduce preplant fertilizer by half.

***Red indicates an organic option**

Sidedress Fertilizer Amounts and Timing

| Crop | Sidedress Fertilizer <small>*Required, foliar feeding is not a replacement for sidedressing.</small> | | | Foliar Fertilizer Begin 3 weeks from germination. Apply every 7-14 days <small>*SUPPLEMENT, SIDEDRESS STILL REQUIRED</small> |
|--|---|--|--|---|
| | NKDoo10-0-4 OR Granular 8-1-7 (lbs/100 row ft) | Hi K 4-1-12 OR ForageDoo 3-3-10 (lbs/100 row ft) | Timing | |
| Home Garden | 2 | None | 3 weeks after germination/transplant | VeggieBlaster ** |
| Market garden | 2 | None | 3 weeks after germination/transplant | VeggieBlaster ** |
| Cole Crops | 2 | 1 | 3 weeks after germination/transplant | VeggieBlaster ** |
| Flowers | 0-2lbs | None | 3 weeks after germination/transplant | BloomBlaster ** |
| Fruit Trees (Apples, Pears, Cherries, Peaches, etc) | None | None | Apply "preplant fertilizer" annually in early spring | BloomBlaster before Fruit Set, FruitBlaster after Fruit Set ** |
| Root Vegetables | 0.5 | 1.5 | 3 weeks after germination/transplant | VeggieBlaster ** |
| Blueberries, Blackberries, Raspberries, Elderberries | None | None | Apply "preplant fertilizer" annually in early spring | BloomBlaster before fruit set, FruitBlaster after fruit set ** |

FERTILIZER GUIDE



| Crop | Sidedress Fertilizer | | | Foliar Fertilizer |
|-----------------------------|--|--|--|---|
| | *Required, foliar feeding is not a replacement for sidedressing. | | | |
| Specific Crop Rates: | NKDoo 10-0-4 OR Granular 8-1-7 (lbs/100 row ft) | Hi K 4-1-12 OR ForageDoo 3-3-10 (lbs/100 row ft) | Timing | Begin 3 weeks from germination. Apply every 7-14 days *SUPPLIMENT, SIDEDRESS STILL REQUIRED |
| Asparagus | None | None | | VeggieBlaster ** |
| Snap Beans | None | None | | VeggieBlaster ** |
| Beets, red | None | 2.5 | 3 weeks after germination/transplant | VeggieBlaster ** |
| Broccoli | None | 5.5 | 3 weeks after germination/transplant | VeggieBlaster ** |
| Brussels Sprouts | 2.5 | None | Split, half at week 4 and half week 8 | VeggieBlaster ** |
| Cabbage | 2.5 | None | 3 weeks after germination/transplant | VeggieBlaster ** |
| Carrots | None | 2 | When tops reach 3 inches | VeggieBlaster ** |
| Cauliflower | 2.5 | None | 3 weeks after germination/transplant | VeggieBlaster ** |
| Celeriac | 1.5 | 2.5 | 3 weeks after germination/transplant | VeggieBlaster ** |
| Celery | 1 | 7 | Split, half at week 4 and half week 8 | VeggieBlaster ** |
| Cucumbers | None | 1 | Bloom | VeggieBlaster ** |
| Dill | None | None | | VeggieBlaster ** |
| Eggplant | 1.5 | 0.5 | Split, half at week 4 and half week 8 | VeggieBlaster ** |
| Endive | 0.5 | 1 | 3 weeks after germination/transplant | VeggieBlaster ** |
| Escarole | 0.5 | 1 | 3 weeks after germination/transplant | VeggieBlaster ** |
| Garlic | 1.5 | 0.5 | Early spring (planted in fall) | VeggieBlaster ** |
| Ginseng | None | None | | VeggieBlaster ** |
| Grapes | None | 1 | Fall after harvest | BloomBlaster before fruit set, FruitBlaster after fruit set ** |
| Greens, leafy | 0.5 | 0.5 | 3 weeks after germination/transplant | VeggieBlaster ** |
| Horseradish | None | 2 | Split, half at week 4 and half week 8 | VeggieBlaster ** |
| Kohlrabi | 2 | 0.5 | 3 weeks after germination/transplant | VeggieBlaster ** |
| Leek | 2 | 1 | Split, half at week 4 and half week 8 | VeggieBlaster ** |
| Lettuce, Leaf | None | 2 | 3 weeks after germination/transplant | VeggieBlaster ** |
| Lettuce, Head or Romain | 1 | 3 | 3 weeks after germination/transplant | VeggieBlaster ** |
| Melon | 0.5 | 0.5 | 3 weeks after germination/transplant | VeggieBlaster ** |
| Onion, Dry Bulb | 3 | None | Split, half at week 4 and half week 8 | VeggieBlaster ** |
| Onion, Green | 2 | None | Split, half at week 4 and half week 8 | VeggieBlaster ** |
| Bok Choi | 1.5 | None | 3 weeks after germination/transplant | VeggieBlaster ** |
| Parsley | None | 2.5 | 3 weeks after germination/transplant | VeggieBlaster ** |
| Parsnip | None | 2.5 | 3 weeks after germination/transplant | VeggieBlaster ** |
| Peas | None | None | | VeggieBlaster ** |
| Peppers (Bell, Hot, Banana) | 0.5 | 0.5 | Bloom | VeggieBlaster before fruit set, FruitBlaster after fruit set ** |
| Potato | 2 | 4 | At hilling | VeggieBlaster ** |
| Pumpkin | None | 1 | Bloom | VeggieBlaster before fruit set, FruitBlaster after fruit set ** |
| Radish | None | None | | VeggieBlaster ** |
| Rhubarb | None | 2 | Early spring (apply preplant fertilizer in fall for established rhubarb) | VeggieBlaster ** |
| Rutabaga | None | 2.5 | 3 weeks after germination/transplant | VeggieBlaster ** |
| Spinach | 1.5 | 2.5 | 3 weeks and 6 weeks | VeggieBlaster ** |
| Squash (Hard, Summer) | None | 1 | Bloom | VeggieBlaster before fruit set, FruitBlaster after fruit set ** |
| Strawberries | 1 | 1.5 | Spring (If established, fall apply the preplant fertilizer) | BloomBlaster before fruit set, FruitBlaster after fruit set ** |
| Sweet Corn | 1.5 | None | 6 inches tall | VeggieBlaster ** |
| Sweet Potatos | None | 1 | 3 weeks after germination/transplant | VeggieBlaster ** |
| Swiss Chard | None | 3 | Split, Half on week 3 and half week 6 | VeggieBlaster ** |
| Tomato | 1 | 2 | Bloom | VeggieBlaster before fruit set, CalBlaster at bloom, FruitBlaster after fruit set ** |
| Turnip | 0.5 | 0.5 | 3 weeks after germination/transplant | VeggieBlaster ** |
| Watermelon | 1 | None | 3 weeks after germination/transplant | VeggieBlaster before fruit set, FruitBlaster after fruit set ** |
| Zucchini | None | 0.5 | Bloom | VeggieBlaster before fruit set, FruitBlaster after fruit set ** |

*KelpFul and Molasses are a great addition to any foliar applications to aid in nutrient uptake and mitigate plant stress.

**For an organic option, you can substitute the following:

AgroThrive General Purpose 3-3-2 in place of VeggieBlaster

AgroThrive Fruit and Flower 3-3-5 in place of BloomBlaster and FruitBlaster

If weed pressure is heavy or you see yellowing throughout the year, apply 1-2 additional applications of 1lb/100 row ft of NKDoo 10-0-4.

FERTILIZERS

Organic!

Morgan Composting.



Organic Granulated Fertilizer

For Stimulating Growth in Flowers, Fruits, or Vegetables

Made with all-natural ingredients and powered by **DAIRY DOO!**

Use as a slow-release fertilizer to feed your flowers or vegetables in containers or garden beds.

25 lbs.

HEALTHY GARDEN 7-6-5 5%Ca

Garden need a little pick-me-up? **POWERED BY DAIRY DOO**, this product is jam-packed with organic, all-natural and plant available nutrients your plants will love. **HEALTHY GARDEN** is also a great source of calcium- perfect for even those heavy feeding plants! This all-natural, organic, and chemical-free fertilizer is completely safe to use on edible plants.

Spread by hand, broadcast applicator, or by using a spreader.

Available in 4lb, 25lb bags and 1 ton super sacks.

How to Use and Apply HEALTHY GARDEN 7-6-5

| Flower Beds | New Veggie Garden | Established Veggie Garden | Plants in Containers |
|--|---|--|---|
| Apply 1-2 lbs per 100 sq ft or sprinkle 1-2 tbsp per foot of plant height around each plant. | Apply 10-15 lbs per 500 sq ft before planting and till in 4 inches. | Apply 2-3 lbs per 500 sq ft or sprinkle 1 tbsp per foot of plant height around each plant. | Sprinkle 1 tbsp per foot of plant height around each plant. |

Organic!

Morgan Composting.



Organic Granulated Fertilizer

For a Greener, Healthier Lawn

Powered by **DAIRY DOO!** and humates!

Use as a slow-release fertilizer to improve your lawn's soil health and feed your grass.

25 lbs.

SAFE GREEN LAWN 10-0-4 0.5%Ca

The best lawn on the block is **POWERED BY DAIRY DOO** and humates! Achieve a lush, green lawn that is fortified with solid biology, without the use of phosphorus or chemicals! This granulated fertilizer works with new or existing lawns and is safe for use around kids, pets, lakes, rivers, and streams.

Apply **SAFE GREEN LAWN** 3 times a year using a broadcast spreader. For new lawns, one 25 lb bag covers 2,500 sq ft. Available in 25 lb bags and 1 ton super sacks.

How to Use and Apply SAFE GREEN LAWN

| Established Lawns | New Lawns |
|--|--|
| Apply 5 - 10 lbs per 1,000 sq ft 3 times per year. | Apply 10 lbs per 1,000 sq ft before seeding or sodding. |
| Holidays help you remember your applications! Apply around Memorial Day, 4th of July, and Labor Day. | Mix into the top inch of soil. Keep seed or sod bed moist to ensure establishment. |
| For established lawns, 1 bag covers 5,000 sq ft. | For new lawns, 1 bag covers 2,500 sq ft. |



BEFORE



AFTER

FERTILIZERS

Replace your 19-19-19 fertilizers for nutrients that stay in the soil!



Sustainable Granulated Fertilizer

For feeding fruits, vegetables, flowers, food plots, trees, or new lawns.

- ✿ Powered by **DAIRY DOO**
- 🌱 With extra calcium to feed plants
- 🌿 Contains nutrients and organic matter to replenish soil health
- 🌿 Use it with any outdoor plant

Use as a slow-release fertilizer to feed any of your outdoor plants.



Net Weight 40 lbs. (18.14 kg)
Find directions for use and more on the reverse.

Made with processed poultry manure and **DAIRY DOO**, this fertilizer offers calcium, nitrogen, phosphorus, and potassium that your plants can actually access. **ALL PURPOSE 8-4-4** adds organic matter to your soil that acts as sponges to hold your nutrients in place for your plants to retrieve when they need them. This is a general-use fertilizer that works great at feeding almost anything that you are trying to grow!

Available in 40 lb bags, 1 ton super sacks, and bulk.



How to Use and Apply ALL PURPOSE 8-4-4

| Flower Beds | New Veggie Garden | Established Veggie Garden |
|--|--|---|
| Apply 1 lb per 100 sq ft or sprinkle 1-2 tsp around each plant. | Apply 10-15 lbs per 500 sq ft before planting and till in 4 inches. | Apply 2-3 lbs per 500 sq ft or sprinkle 1 tbsp per foot of plant height around each plant. |
| Plants in Containers | New Lawns | Mature Tree |
| Sprinkle 1 tbsp per foot of plant height around each plant. | Apply 10 lbs per 1,000 sq ft before seeding or sodding. Mix into the top inch of soil. Keep seed or sod bed moist to ensure establishment. | Spread 2-2.5 lbs per inch of trunk diameter in early spring or late fall. Start a minimum of 1 ft from the trunk and move outward in concentric circles until you reach 2-3 feet beyond the canopy. |
| Newly Transplanted Tree | New Food Plot | Established Food Plot |
| Spread 0.5-1 lb per inch of trunk diameter in early spring or late fall. Start a minimum of 1 ft from the trunk and move outward in concentric circles until you reach 2-3 ft beyond the canopy. | Spread 600-800 lbs per acre. Can be applied the same day as lime and seeds. | Spread 200-400 lbs per acre. Can be applied the same day as lime and seeds. |