Brix Levels Testing Guide & Tracking Sheet

Why Measure Brix Levels?

Brix levels indicate the sugar content in plant sap — a key marker of plant health, nutritional density, and photosynthetic activity.

In essence, the higher a plant's BRIX levels, the more nutritionally dense it is - leading to healthier, more resilient pasture and the livestock that feed on it.

BRIX levels are a key indicator of a plant's ability to resist pests and disease.

In our own Biologically Farmed soils, we see Brix Levels of 18 - 35% in our pastures.

Brix levels are measured by taking a "Brix reading" using a Brix refractometer. These are cheap, handheld devices you can purchase online to measure Brix levels at any time.

Below are some recommended Brix meters on eBay and Amazon:

https://microstartfarming.com.au/brix-refractometer-ebay

https://microstartfarming.com.au/brix-refractometer-amazon

Step-by-Step Brix Testing Instructions

Watch Video Guide Here:

https://youtu.be/2j8ZIDWe9pI?si=4-2cgOvPZtE5sMAq&t=60

1. When to Test:

- Test at 3:00 PM on a sunny day for consistent results.
- Test before and after applying Microstart applications to track changes over time.
- Try to test when pasture/crop is dry, unless irrigated recently.

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2. What You'll Need:

- Hand-held Brix refractometer (calibrated)
- Garlic press or sap extractor
- Tissue (to clean lens)
- Notebook or tracking sheet

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3. How to Take a Reading:

- Select 2–3 plants that represent the average condition of the pasture or crop.
- Squeeze the sap using a garlic press or sap extractor.
- Place 1–2 drops of sap onto the lens of the refractometer.
- Look through the refractometer and note the BRIX %

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4. Interpreting Results:

BRIX Level (%)	General Pasture/Crop Health Indicator
0–2%	**Very low – poor health and nutrition**
3–5%	**Average – needs improvement**
6–8%	**Good – improving biology and health**
9–12%	**Very Good – nutrient-dense**
13%+	**Excellent – high sugar, high resilience**

- Every 1% increase represents a doubling of nutritional value within the pasture or crop.
- Brix level increases often reflect improved soil health and microbial activity.

Tips for Consistent Readings

- Always test at the same time of day.
- Avoid testing right after rain or irrigation (unless tracking that effect).
- Test the same area each time for consistency.
- Use a clean, calibrated refractometer.
- Track BRIX after each application cycle to measure improvement over time.

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BRix Levels Reference Chart: Ideal Readings for Grasses, Fruits & Vegetables

VEGETABLES				
Vegetables	**Poor**	**Average**	**Good**	**Excellent**
Asparagus	2	4	6	8
Beets	6	8	10	12
Bell Peppers	4	6	8	12
Broccoli	6	8	10	12
Cabbage	6	8	10	12
Carrots	4	6	12	18
Cauliflower	4	6	8	10
Celery	4	6	10	12
Corn Stalks	4	8	14	20
Corn (Young)	6	10	18	24
Cow Peas	4	6	10	12
Endive	4	6	8	10
English Peas	8	10	12	14
Escarole	4	6	8	10
Field Peas	4	6	10	12
Green Beans	4	6	8	10
Hot Peppers	4	6	8	10
Kohlrabi	6	8	10	12
Lettuce	4	6	8	10
Onions	4	6	8	10
Parsley	4	6	8	10
Peanuts	4	6	8	10
Potatoes, Irish	3	5	7	8
Potatoes, Red	3	5	7	8
Potatoes, Sweet	6	8	10	14
Romaine	4	6	8	10
Rutabagas	4	6	10	12
Squash	6	8	12	14
Sweet Corn	6	10	18	24
Turnips	4	6	8	10

FRUITS - GRASSES				
Fruits	**Poor**	**Average**	**Good**	**Excellent**
Apple	6	10	14	18
Avocadoes	4	6	8	10
Bananas	8	10	12	14
Cantaloupe	8	12	14	16
Casaba	8	10	12	14
Cherries	6	8	14	16
Coconut	8	10	12	14
Grapes	8	12	14	20
Grapefruit	6	10	14	18
Honeydew	8	10	12	14
Kumquat	4	6	8	10
Lemons	4	6	8	12
Limes	4	6	10	12
Mangos	4	6	10	14
Oranges	6	10	16	20
Papayas	6	10	18	22
Peaches	6	10	14	18
Pears	6	10	12	14
Pineapple	12	14	20	22
Raisins	60	70	75	80
Rasberry	6	8	12	14
Strawberry	6	10	14	16
Tomato	4	6	8	12
Watermelon	4	6	8	12
Grasses				
Alfalfa	4	8	16	22
Grains	6	10	14	18
Sorghum	6	10	22	30

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Tracking Sheet

Paddock Name/Number: _____

Crop or Pasture Type: _____

Application History: _____

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Date	BRIX (%)	Time of Day	Weather Conditions	Notes (e.g. post-application, irrigation, stock presence)

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