

Masterblend Feeding Chart

Per-gallon feeding by crop and stage · distilled from Guide 4 Part 1

The base ratio is **2 : 1 : 2** (Masterblend 4-18-38 : Epsom salt : Calcium nitrate 15.5-0-0). Adjust concentration, not ratio. The one canonical exception: peppers at fruiting take a magnesium bump (the 2.4 g/gal rule).

Pepper — Full Cycle

Guide 4 §1.4.2

Week	Stage	MB g/gal	Epsom g/gal	Cal-N g/gal	Target EC	pH
1-3	Seedling	1.2	0.6	1.2	0.8-1.0	5.8-6.0
3-6	Vegetative	2.4	1.2	2.4	1.4-1.8	5.8-6.0
6-10	Pre-flower	2.8	1.4	2.8	1.8-2.2	5.8-6.2
10+	Fruiting (Mg bump)	3.0	2.4	3.0	2.2-2.8	6.0-6.2

Tomato — Full Cycle

Guide 4 §1.4.1

Week	Stage	MB g/gal	Epsom g/gal	Cal-N g/gal	Target EC	pH
1-2	Germination	—	—	—	0.0	6.0
2-4	Seedling	1.2	0.6	1.2	0.8-1.0	5.8-6.0
4-7	Early veg	2.4	1.2	2.4	1.4-1.8	5.8-6.0
7-10	Late veg / transition	2.8	1.4	2.8	1.8-2.2	5.8-6.2
10-14	First truss flowering	3.0	1.5	3.0	2.0-2.4	5.8-6.2
14-20	Heavy fruiting	3.6	1.8	3.6	2.4-3.0	6.0-6.2
Final 1-2 wks	Flush / finish	0.5	0.3	0.5	0.5-0.8	6.0

The canonical 2.4 g/gal Epsom rule. Pepper fruiting Epsom is 2.4 g/gal — *not* 1.5. Peppers lift more Mg through fruiting than any other common hydroponic crop. Hold the bump from first fruit set through harvest. This supersedes the 1.5 g/gal figure in upstream Masterblend tables (which average tomatoes and peppers and undercount peppers). Tomato Mg bump is smaller — 1.5-1.8 g/gal across weeks 14-20.

Mixing Order — A → Epsom → CaN-last

Guide 4 §1.3

Step	Action	What happens
1	Fill reservoir with treated water at working volume	Bicarbonates already neutralized (see Cheat Sheet 3)
2	Dissolve Masterblend 4-18-38 fully	Solution turns pale green
3	Dissolve Epsom salt fully	Solution remains clear
4	Dissolve Calcium nitrate last, fully	Solution stays clear — any cloudiness = precipitation, dump and restart

WARNING

Never mix calcium nitrate directly with Masterblend concentrate or with un-dissolved Epsom. Free phosphate + free calcium = insoluble calcium phosphate, which precipitates onto roots within minutes. Dissolve in the order above, in a *diluted* reservoir, fully mixed between steps.

5-Gallon Batch Reference

Guide 4 §1.4.4

Use case	MB	Epsom	Cal-N	Target EC
Seedlings / cuttings	6 g	3 g	6 g	0.8-1.0
Vegetative	12 g	6 g	12 g	1.4-1.8
Fruiting (pepper, Mg bump)	15 g	12 g	15 g	2.2-2.8
Fruiting (tomato)	15 g	7.5 g	15 g	2.0-2.4
Heavy fruiting (tomato)	18 g	9 g	18 g	2.4-3.0

LOCAL TIP

A 0.1 g jeweller's scale is non-negotiable. The difference between 1.2 g and 2.4 g of Epsom on a single gallon is the difference between healthy mid-leaf color and interveinal yellowing on the lower trusses. A \$15 scale from ACE Hardware in Sierra Vista pays for itself.