

# Mittlieder Method of Fertilizing

## Constant Feed - Feeding Seedlings

Constant Feed is a solution of **3 Gallons of water mixed with 1 oz (2 Tbls) of "Weekly Feed"**. Feed Seedlings with this solution until planted in garden. Do NOT use Constant Feed on seeds that are not sprouted. Start Constant Feed after the seeds have sprouted and continue until planted in the garden.

## Pre-Plant - Ingredients & Ratios

Ingredients	Ratio	Acre / 1,000 lbs			40 pounds (lbs)			25 pounds (lbs)			10 pounds (lbs)			5 pounds (lbs)		
		lbs or pints	lbs or pints	cups	Tbls	lbs or pints	cups	Tbls	lbs or pints	cups	Tbls	lbs or pints	cups	Tbls		
Gypsum / Lime (Calcium) <small>[Note 2]</small>	80	1000	40	80	1280	25	50	800	10	20	320	5	10	160		
Epson Salt (Magnesium Sulfate Hydrate)	4	50	2	4	64	1.25	2.5	40	0.5	1	16	0.25	0.5	8		
Borax (Boron) <small>[20 Mule Team Borax]</small>	1	12.5	0.5	1	16	0.31	0.63	10	0.13	0.25	4	0.06	0.13	2		

\* NOTE 1: Pint = Pound. "A Pint is a Pound - the World Around." Pint = 2 Cups

An Ounce (oz.) = 2 Tablespoons - There are 2 Tbls in an ounce, If you want measurements in ounces, take the Tbls column and divide it by 2 (i.e. 4 Tbls / 2 = 2 oz)

\* NOTE 2: In areas that get less than 20 inches of rain per year - Use Gypsum. In areas that get 20 or more inches of rain per year - Use Lime **0-19" = Gypsum, 20" (or more) = Lime**

- Apply 2 Pints (4 Cups or 2 lbs.) of "Pre-Plant" and 1 Pint (2 Cups or 1 lbs.) of "Weekly Feed" to a standard 30' long x 18" wide garden bed. Till into the bed, and then re-shape the bed and plant.
- Pre-Plant is used each time you start a new crop. So if you have a spring AND fall crop you would use Pre-Plant in the Spring and then again in the Fall.
- If your beds are different lengths, use 1 oz (2 Tbls.) of Pre-Plant and ½ oz (1 Tbls.) of Weekly Feed per running foot of garden bed.

## Weekly Feed - Ingredients & Ratios

Ingredients	Ratio	Acre / 300 lbs			40 pounds (lbs)			25 pounds (lbs)			10 pounds (lbs)			5 pounds (lbs)		
		lbs or pints	lbs / pints	or cups	or Tbls	lbs / pints	or cups	or Tbls	lbs / pints	or cups	or Tbls	lbs / pints	or cups	or Tbls		
NPK Fertilizer (13-13-13 - 17,17,17, etc.)	40	250	50	100	1600	25	50	800	10	20	320	5	10	160		
Epson Salt (Magnesium Sulfate Hydrate)	6	37.5	7.5	15	240	3.75	7.5	120	1.5	3	48	0.75	1.5	24		
Micro Nutrients (growfood.com)	1	6.25	1.25	2.5	40	0.63	1.25	20	0.25	0.5	8	0.13	0.25	4		

\* NOTE: See the notes about pounds and ounces under Pre-Plant section above

- Apply 1 Pint (2 Cup or 1 lbs.) of "Weekly Feed" to a standard 30' long x 18" wide garden bed
- For different length beds, use 1 Tbls (1/2 oz) per linear foot.
- For Transplanted plants, apply the first regular application of the Weekly Feed Fertilizer 3 days after transplanting and on a weekly basis thereafter.
- For crops planted from seed, do not fertilize until the seeds have sprouted
- For the number of applications see "Planting\_Helper\_Data" details  
or feed single crops until 3 weeks before beginning of harvest and for everbearing crops feed until 8 weeks before first forst

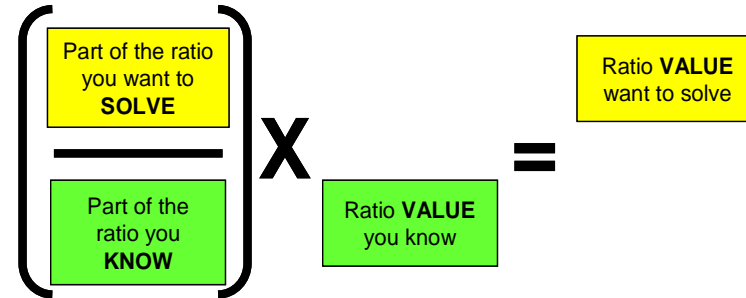
# How to Solve for Ratios

Different Math teachers will tell you different ways of thinking about these problems.

The Formula to the right, works for me.

The Green sections are the parts you know, and the yellow sections are what you are solving.

## Formula



### Pre-Plant Ratio = 80 : 4 : 1

Ratio	Data	Value
80	Known	30
4	Solve	??
1	--	--

Ratio Formula	Known Value	Solve Value
$\left( \frac{4}{80} \right)$	X 30	= 1.5

Ratio	Data	Value
80	Solve	??
4	Known	5
1	--	--

Ratio Formula	Known Value	Solve Value
$\left( \frac{80}{4} \right)$	X 5	= 100

Ratio	Data	Value
80	Known	40
4	--	--
1	Solve	??

Ratio Formula	Known Value	Solve Value
$\left( \frac{1}{80} \right)$	X 40	= 0.5

### Weekly Feed Ratio = 40 : 6 : 1

Ratio	Data	Value
40	Known	30
6	Solve	??
1	--	--

Ratio Formula	Known Value	Solve Value
$\left( \frac{6}{40} \right)$	X 30	= 4.5

Ratio	Data	Value
40	Solve	??
6	Known	5
1	--	--

Ratio Formula	Known Value	Solve Value
$\left( \frac{40}{6} \right)$	X 5	= 33.33

Ratio	Data	Value
40	Known	40
6	--	--
1	Solve	??

Ratio Formula	Known Value	Solve Value
$\left( \frac{1}{40} \right)$	X 20	= 0.5