

# Advanced Plant Nutrient Information



The following plant nutrition guide offers detailed guidance on nutrient concentrations and pH levels for different types of plants as well as their growth stages.

The plant nutrient recommendations below are based on adding nutrients to 10 gallons of water. Divide the recommendations by 3 if you are using a 3.5 gallon pail (water reservoir) which ships with the systems.

Always test the ppm of your water + nutrient solutions to keep them within a proper range. Typically, starting plants (sprouting seeds, or growing very young starts) should use a lower concentration of nutrients such as 1200 ppm. Mature plants usually require higher concentrations, around 1500 - 1600 ppm.

## REVIEW:

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ppm = parts per million. You can assess the parts per million of the nutrients in your water by using a low-cost TDS meter purchased for about \$10 - \$15 from Amazon.com.

pH = Acid/Alkaline level. Low pH is more acidic. High pH is more alkaline. Most plants prefer a pH between 6.0 and 7.0, but they can usually survive in a range of 5.5 to 7.5.

### Units Conversion:

For the CalMag Plant Food, 1 tablespoon = 14 grams

For all plant fertilizer formulas (Lettuce, Strawberry, etc.), 1 tablespoon = 18 grams

## LETTUCE:

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pH target = 6.4 - 6.7 during growth stage / 6.0 - 6.5 during seeding stages

### Lettuce Plant Food 8-15-36:

- Use 45 grams per 10 gallons of water during all stages of plant growth

### CalMag Plant Food:

- Use 30 grams per 10 gallons of water during growth stage
- Use 40 grams per 10 gallons of water during bolting stage

## TOMATO:

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pH target = 6.4 - 6.6 during growth stage / 6.1 - 6.3 during blooming (flowering) stage

### Tomato Fertilizer 4-18-38:

- Use 45 grams per 10 gallons of water during all stages of plant growth

### CalMag Plant Food:

- Use 30 grams per 10 gallons of water during growth stage
- Use 40 grams per 10 gallons of water during blooming stage

### Potassium Nitrate:

- You may optionally add 2 grams per 10 gallons of water during the blooming stage to boost nitrogen levels

## STRAWBERRIES:

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pH target = 6.5 - 6.8 during all stages of plant life

### Strawberry Fertilizer 8-12-32:

- Use 11 grams per 10 gallons of water during growth stage
- Use 17 grams per 10 gallons of water during blooming stage

### CalMag Plant Food:

- Use 12 grams per 10 gallons of water during growth stage
- Use 23 grams per 10 gallons of water during blooming stage

## CUCUMBER:

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pH target = 6.4 - 6.7 during all stages of plant life

### Cucumber Fertilizer 8-16-36:

- Use 45 grams per 10 gallons of water during all stages of plant growth

### CalMag Plant Food:

- Use 30 grams per 10 gallons of water during growth stage
- Use 40 grams per 10 gallons of water during blooming

### Calcium Nitrate:

- You may optionally add 10 grams per 10 gallons of water during the blooming stage

## PEPPERS:

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pH target = 6.2 - 6.5 during growth stage / 5.8 - 6.2 during blooming stage

### Pepper and Herb Fertilizer 11-11-40:

- Use 23 grams per 10 gallons of water during all stages

### CalMag Plant Food:

- Use 30 grams per 10 gallons of water during growth stage
- Use 40 grams per 10 gallons of water during blooming stage

## HERBS:

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pH target = 6.2 - 6.5 during growth stage / 5.8 - 6.2 during blooming stage

### Pepper and Herb Fertilizer 11-11-40:

- Use 11 grams per 10 gallons of water during all stages

### CalMag Plant Food:

- Use 14 grams per 10 gallons of water during growth stage
- Use 23 grams per 10 gallons of water during blooming stage

### Additional Nitrogen:

- Recommended to add nitrogen for herbs. Can use either calcium nitrate or potassium nitrate at around 2 grams per 10 gallons of water.