



**JR PETERS INC**

# Reading and Analyzing your Fertilizer Bag

▶ Dr. Cari Peters    Vice President    [caripeters@jrpeters.com](mailto:caripeters@jrpeters.com)



# JR PETERS INC

Designer, Formulator, Producer and custom manufacturer of high quality fertilizer products.

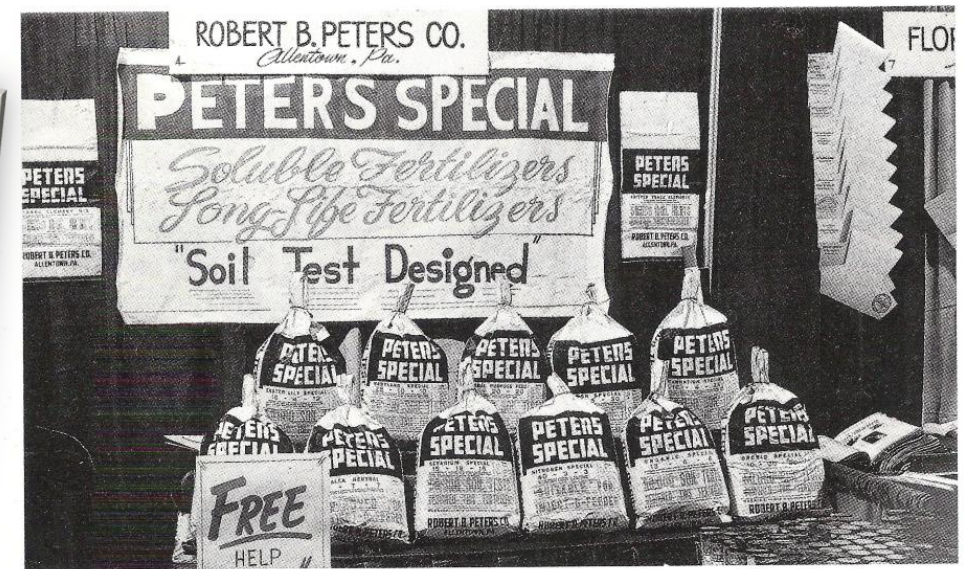
*“Hand’s on Horticulture”*





# A Family Tale In Plant Nutrition

*The Peters family has come full circle in providing plant nutrition.*



*The Robert B. Peters Co. showed off its specialty fertilizers at The Ohio State University Short Course in 1953.*

## **PETERS MERCHANDISER MODULE #9810**

A Complete Assortment of Peters Professional Soluble Plant Food  
DISTRIBUTED EXCLUSIVELY BY FLORIDA SEED & FEED COMPANY, INC., OCALA, FLORIDA 32670, (904) 732-4211

# JR Peters Manufacturing Facility



- ▶ Unique blending facility located in Allentown PA
- ▶ Lean techniques used to maximize efficiency
- ▶ Highest Quality & Purity Raw Materials
  - ▶ Greenhouse grade / technical grade
  - ▶ Ensures best solubility & availability on the market
- ▶ Products made fresh
  - ▶ Quick order response time
  - ▶ Products produced and shipped as fast as 3-5 days



# Peters Family System of Formulating

Over 70 Years of Lab testing tells us what plant's respond to

Interaction with Growers & customers through the lab and on the phone

Proprietary system analyzes formula's according to plant response.







# JR Peters' Fertilizer

*The Quality Standard in Water Soluble Fertilizer*

## OUR PRODUCT LINES

Jack's Pro

Jack's LX

Jack's FeED's

Jack's Classic

Jack's Hydroponic

Oasis Hydroponic 16-4-17

Aqua Gold High Tunnel Fertilizers



# JR PETERS INC



## Guaranteed Analysis

F1313	
Total nitrogen (N) .....	20%
8.04% ammoniacal nitrogen	
11.96% nitrate nitrogen	
Available phosphate (P <sub>2</sub> O <sub>5</sub> ) .....	3%
Soluble potash (K <sub>2</sub> O) .....	19%
Magnesium (Mg), total .....	1.3400%
1.3400% water soluble magnesium (Mg)	
Boron (B) .....	0.0200%
Copper (Cu) .....	0.0100%
0.0100% chelated copper (Cu)	
Iron (Fe) .....	0.2000%
0.2000% chelated iron (Fe)	
Manganese (Mn) .....	0.0500%
0.0500% chelated manganese (Mn)	
Molybdenum (Mo) .....	0.0100%
Zinc (Zn) .....	0.0500%
0.0500% chelated zinc (Zn)	

## Derived From Statement

**Derived from:** ammonium nitrate, ammonium sulfate, monopotassium phosphate, potassium nitrate, magnesium sulfate, boric acid, iron DTPA, iron EDDHA, iron EDTA, manganese EDTA, zinc EDTA, copper EDTA, ammonium molybdate

## Name & Address

Mfg. By JR Peters, Inc.  
6656 Grant Way  
Allentown, PA 18106  
1-866-522-5752  
www.jrpeters.com



## Name & Grade

**20-3-19 Petunia FeED Plus Mg  
Water Soluble Fertilizer**  
(For Continuous Liquid Feed Programs)

## CCE

**Potential Acidity:** 420 lb. Calcium carbonate equivalent per ton.

## Mixing Instructions

Desired N feed rate	Injector Setting			E.C. value (mmhos)
	1:15	1:100	1:200	
<b>50 ppm</b>	.50	3.38	6.75	.32
<b>100 ppm</b>	1.00	6.75	13.50	.64
<b>200 ppm</b>	2.00	13.50	27.00	1.28

Limit of Solubility = 4 lbs per gallon

## Weight





“ While it is common to focus on the 3 big numbers of a fertilizers formula (N, P<sub>2</sub>O<sub>5</sub> & K<sub>2</sub>O), it is also important to examine the labels fine print ”

**Doritos**  
Cool Ranch

**Nutrition Facts**  
Serving Size 1 oz (28g/About 12 chips)

Amount Per Serving	Calories from Fat 70
Calories 150	% Daily Value*
<b>Total Fat</b> 8g	<b>5%</b>
Saturated Fat 1g	
Trans Fat 0g	<b>0%</b>
<b>Cholesterol</b> 0mg	<b>8%</b>
<b>Sodium</b> 180mg	<b>6%</b>
<b>Total Carbohydrate</b> 18g	<b>6%</b>
Dietary Fiber 2g	
Sugars less than 1g	
<b>Protein</b> 2g	
Vitamin A 0%	Vitamin C 0%
Calcium 2%	Iron 0%
Vitamin E 6%	Thiamin 4%
Riboflavin 2%	Vitamin B6 4%
Phosphorus 4%	Magnesium 4%

**Ingredients:** Whole Corn, Vegetable Oil (Corn, Canola, Soybean and/or Sunflower Oil), Maltodextrin (Made From Corn), Salt, Tomato Powder, Corn Starch, Lactose, Whey, Skim Milk, Corn Syrup Solids, Onion Powder, Sugar, Garlic Powder, Monosodium Glutamate, Cheddar Cheese (Milk, Cheese Cultures, Salt, Enzymes), Dextrose, Malic Acid, Buttermilk, Natural and Artificial Flavors, Sodium Acetate, Artificial Color (Including Red 40, Blue 1, Yellow 5), Sodium Caseinate, Spice, Citric Acid, Disodium Inosinate, and Disodium Guanylate.

**CONTAINS MILK INGREDIENTS.**



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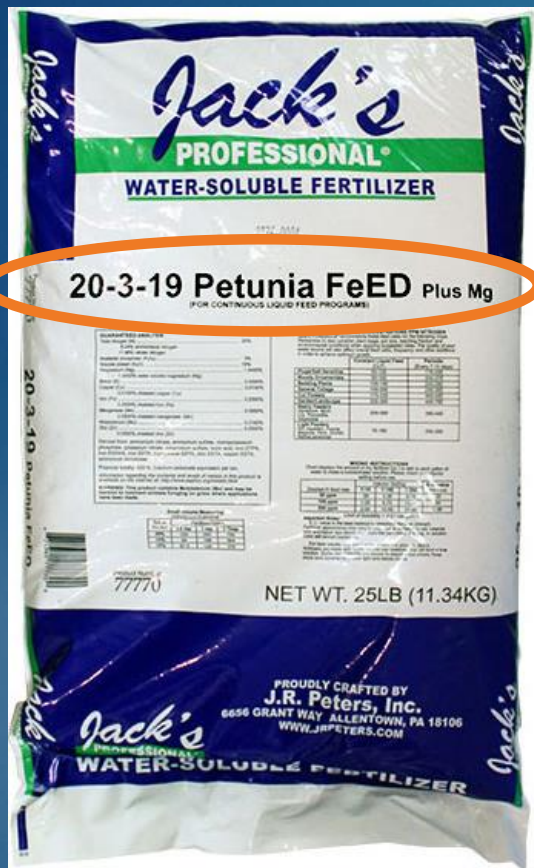
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Weight



20-3-19

Petunia FeED

% N - % P<sub>2</sub>O<sub>5</sub> - % K<sub>2</sub>O

For Continuous Liquid Feed programs

P to P<sub>2</sub>O<sub>5</sub> = multiply by 2.3

K to K<sub>2</sub>O = multiply by 1.2

Name and Grade

# 20-3-19

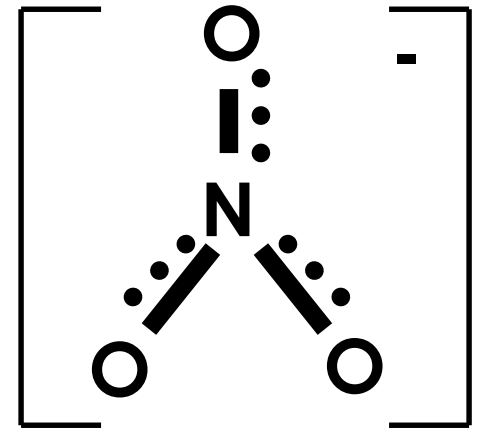
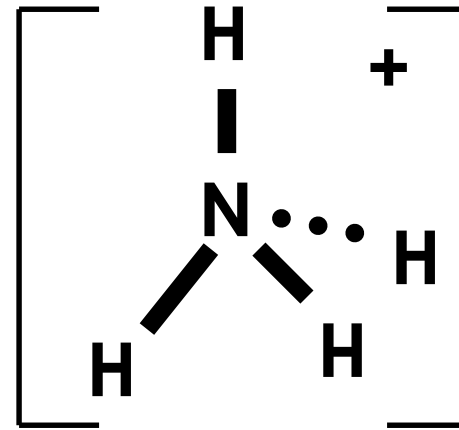
% N - % P<sub>2</sub>O<sub>5</sub> - % K<sub>2</sub>O

Nutrients do not exist as individual elements

Ammonium Nitrate



What's the other 58%



Ions are attached to other elements through chemical bonds



Bedding Plants	
Nutrient	% in Tissue
Nitrogen	4%
Phosphorus	0.5 – 2%
Potassium	2 – 8 %
Calcium	2%
Magnesium	0.5 – 1 %
Sulfur	1 – 2 %

In a 25 lb bag of 20-20-20

5 lbs are from N sources

5 lbs are from P<sub>2</sub>O<sub>5</sub> sources

5 lbs are from K<sub>2</sub>O sources



Under fed plants



Example of plants that were fed when the injector was not pulling at the correct strength of fertilizer

# *Low fertility affects plant marketability*



**Low fertility**



**Normal fertility**



# Healthy Roots ensures Nutrient Uptake





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0.0500% chelated manganese (Mn)	
Molybdenum (Mo) .....	0.0100%
Zinc (Zn) .....	0.0500%
0.0500% chelated zinc (Zn)	



includes Calcium, an effective nutrient to help prevent blossom end rot.

**GUARANTEED ANALYSIS:** F1313

Total Nitrogen (N)	12%	Derived from: monoammonium phosphate, potassium nitrate, calcium nitrate, magnesium sulfate, iron EDTA, iron DTPA, iron EDDHA, manganese EDTA, boric acid, copper EDTA, zinc EDTA, ammonium molybdate. Potential Acidity: 10 lbs. calcium carbonate equivalent (CCE) per ton. Information regarding the contents and levels of metals in this product is available on the internet at <a href="http://www.aapfco.org/metals.htm">www.aapfco.org/metals.htm</a>
2.70% Ammoniacal Nitrogen		
9.30% Nitrate Nitrogen		
Available Phosphate (P <sub>2</sub> O <sub>5</sub> )	15%	
Soluble Potash (K <sub>2</sub> O)	30%	
Calcium (Ca)	0.50%	
Magnesium (Mg)	0.30%	
Boron (B)	0.02%	
Copper (Cu)	0.05%	
0.05% Chelated Copper (Cu)		
Iron (Fe)	0.10%	
0.10% Chelated Iron (Fe)		
Manganese (Mn)	0.05%	
0.05% Chelated Manganese (Mn)		
Molybdenum (Mo)	0.0009%	
Zinc (Zn)	0.05%	
0.05% Chelated Zinc (Zn)		

**CAUTION:** Do not swallow. Keep out of the reach of children.

MANUFACTURED BY: JR PETERS INC., Allentown, PA 18106



**Jack's™**  
**CLASSIC**  
**Tomato FeED**  
Water Soluble Plant Food with Micronutrients  
**12-15-30**  
For tomatoes and all blooming vegetables

Net Wt. 1.5 lbs (680g)

Retail labels have some of the similar information usually on the back of the container



Magnesium (Mg)	0.30%
Boron (B)	0.02%
Copper (Cu)	0.05%
0.05% Chelated Copper (Cu)	
Iron (Fe)	0.10%
0.10% Chelated Iron (Fe)	
Manganese (Mn)	0.05%
0.05% Chelated Manganese (Mn)	
Molybdenum (Mo)	0.0009%
Zinc (Zn)	0.05%
0.05% Chelated Zinc (Zn)	

# Micronutrients

Required by plant in relatively small amounts

Availability largely controlled by pH

Bedding Plants	
Nutrient	% in Tissue
Iron	.01 – 0.5%
Manganese	.01 – 0.3%
Copper	.009 – 0.2%
Zinc	.009 – 0.2%
Boron	.005 – .0175%
Molybdenum	.0002- .005%

# PETERS SOLUBLE FERTILIZERS

Peters Special Soluble Fertilizers are now used by more commercial growers of horticultural than any other brand. This wide acceptance by the professional growers is due, very probably, to experience the Peters Co. has gathered over the past 15 year period, during which time the soil-testory of the Peters Co. has tested over 100,000 soil samples on actual commercial crops being gro

All of this experience and know-how has been utilized to the fullest extent in the formulation Peters Special formulas for the home-garden user. When you purchase a container of Peters Special fertilizer, you have without a doubt, bought the finest soluble fertilizer it is possible to buy anywhere. sider the following listed items all of which together have made the name "Peters" the "standard" soluble fertilizer field today:

## 1. EXCLUSIVE CHELATING FORMULA



Peters Special Fertilizers contain an exclusive chelating formula that will prevent precipitation or settling out not only of major elements, but also of minor (secondary) and trace elements as well. This not only prevents clogging of lines and equipment, but also assures complete availability to the plants of all elements, major, minor and trace.

This complete chelation or sequestration of the entire fertilizer formula is considered a major step forward in soluble fertilizer technology and was developed by the Robert B. Peters Co. specifically for use in its specialty soluble fertilizers.

## 2. TRACE ELEMENTS

All Peters Special Fertilizers contain all of the accepted necessary trace elements in a perfectly balanced ratio for the best plant growth. With conventional type soluble fertilizers the majority of the trace element complex winds up as a sludge or precipitate in the bottom of the container, or as an insoluble compound in the soil. This problem does not exist with Peters Special Fertilizers since all accepted trace elements are completely chelated in a stable solution that will remain permanently available to the plants.



## 3. COMPLETELY WATER SOLUBLE



At normal rates of solution Peters Special Fertilizers crystal clear and 100% soluble with virtually no undissolved particles whatsoever clog nozzles, lines or equipment. Even at abnormal heavy concentrations there are virtually no undissolved particles at all to cause trouble. It is possible to dissolve up to 2 pounds of Peters in 1 gallon of water. Use hot

water for fastest dissolving.

## 4. HIGHEST PURITY AND EXCLUSIVE BLEND

Only the highest grade technical materials are used in the formulation of Peters Special Fertilizers. Laboratory controlled supervision is kept over the manufacturing process which is done with the finest available mixing and blending equipment using a process exclusive with Peters Special Fertilizers. Compare the soft, fine, smooth texture with other brands.



ROBERT B. PETERS CO., INC. Date \_\_\_\_\_

"Soil Fertility Control Specialists" Name \_\_\_\_\_

2833 PENNSYLVANIA ST. Address \_\_\_\_\_  
ALLENTOWN, PA. 18104

Area Code 215 Phone 439-1595

Crop \_\_\_\_\_

"Soluble Salts"

TOTAL SOLUBLE SALTS  
1:5 SOIL WATER RATIO

Light to medium salt content. No leaching required.  
Medium to heavy salt content. Possible leaching required.  
Heavy to very heavy salt content. Leach thoroughly.

pH

GLASS ELECTRODE DETERMINED

Below 5.00 Too acid range. Limestone needed on all crops.  
5.00-5.50 OK for acid loving crops. Limestone needed on acid crops.  
5.50-6.00 Limestone needed on non-acid crops.  
6.00-7.20 No limestone needed.  
Above 7.20 Iron Sulfate or acid peat needed to lower pH.

NITROGEN - SPURWAY

NITRATES {NO<sub>3</sub>}  P P M

PLUS PLUS

AMMONIUM {NH<sub>4</sub>}  P P M

EQUALS

TOTAL AVAILABLE NITROGEN AS

NITRATES {NO<sub>3</sub>}  P P M

Any Ammonium (NH<sub>4</sub>) present has been multiplied by 3 and added to Nitrate (NO<sub>3</sub>) to get Total Amount of available Nitrogen as Nitrates (NO<sub>3</sub>), Spurway.)

TOTAL AVAILABLE NITROGEN  
AS NITRATES (NO<sub>3</sub>), SPURWAY

0-25 PPM Too low. Feed Nitrogen immediately.  
25-35 PPM Fair level. Will take Nitrogen in 3-5 days.  
35-60 PPM Good level. Will take Nitrogen in 5-14 days. Best level for constant feeding with every watering.  
60-100 PPM High level. No feeding needed for 2-4 weeks.

(SPURWAY AS PP10M)

PHOSPHORUS {P}

T (Trace)-20 PP10M Deficient Area. Add Superphosphate.  
20-50 PP10M Borderline Area. Add Superphosphate.  
50-80 PP10M Medium Area. Add Superphosphate for potting mixtures only.  
80-200 PP10M Good Supply. No Superphosphate needed.  
(Pink Hydrangeas require at least 100 PP10M Phosphorus. Blue Easter Lilies (Croft Type) should have no more than 30 PP10M Phosphorus.)

(SPURWAY AS PP10M)

POTASSIUM {K}

Below 150 PP10M: Add Muriate of Potash or Potassium Nitrate. Switch to high Potash fertilizer.  
150-400 PP10M: Normal growing range.  
Above 400 PP10M: Getting too high. Reduce Potash by leaching or removing from feeding program.  
(Azaleas, Rhododendrons, Roses, Pink Hydrangeas and turf grasses and most shrubs all require less than the normal 150)

# The Evolution of Water Soluble fertilizers 1947-1962

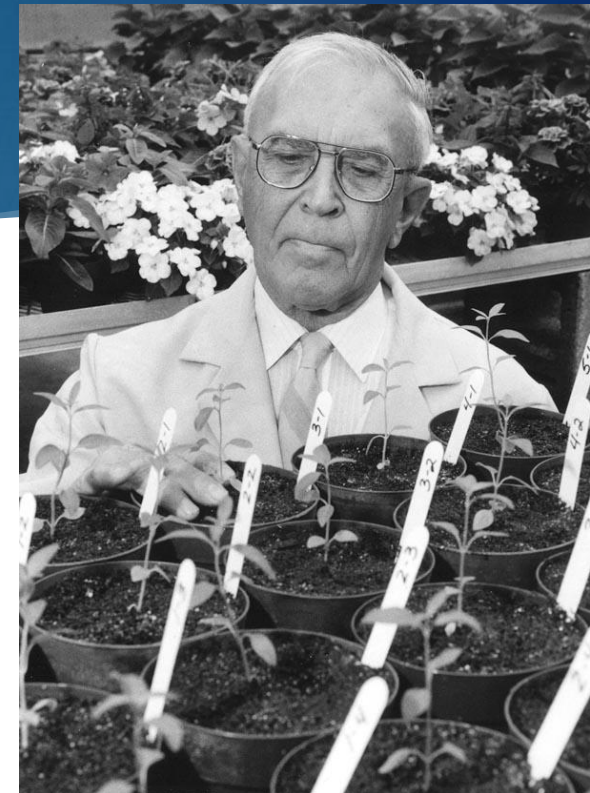
- ▶ Peat-Lite Special formulations were introduced
  - ▶ High Nitrate
  - ▶ Higher trace element package
  - ▶ 15-16-17
  - ▶ 15-11-29
  - ▶ 1980 = 20-10-20 Peat-Lite





# The micronutrient concentration in “Peat Lite” and “General Purpose” formulas expressed as percent (%) and parts per million (ppm).

<u>Fertilizer Formula</u>		<u>% B</u>	<u>% Cu</u>	<u>% Fe</u>	<u>% Mn</u>	<u>% Mo</u>	<u>% Zn</u>
20-20-20	GP	0.0068	0.0036	0.05	0.025	0.0009	0.0025
20-20-20	Peat-Lite	0.02	0.01	0.10	0.05	0.01	0.05
<b>PPM of Individual Nutrients in a 100 ppm N Total Nitrogen Solution</b>							
<u>Fertilizer Formula</u>		<u>B</u>	<u>Cu</u>	<u>Fe</u>	<u>Mn</u>	<u>Mo</u>	<u>Zn</u>
20-20-20	GP	0.034	0.018	0.25	0.125	0.005	0.013
20-20-20	Peat-Lite	0.10	0.05	0.50	0.25	0.05	0.25



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1.3400% water soluble magnesium (Mg)	
Boron (B) .....	0.0200%
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Iron (Fe) .....	0.2000%
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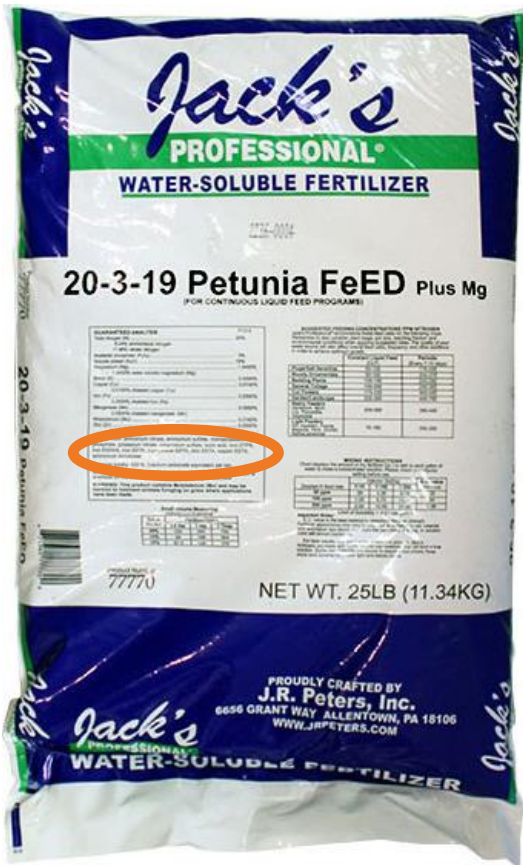
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<b>100 ppm</b>	1.00	6.75	13.50	.64
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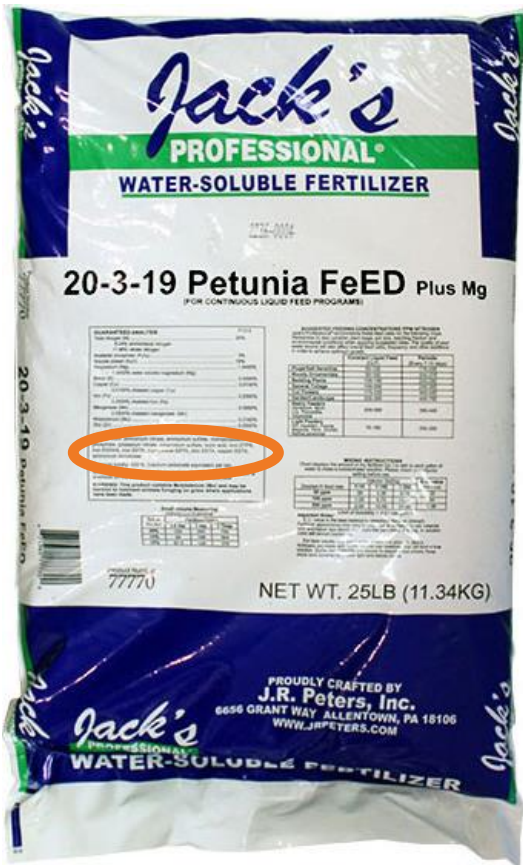


Manganese (Mn) .....	0.0500%
0.0500% chelated manganese	
Molybdenum (Mo).....	0.0100%
Zinc (Zn) .....	0.0500%
0.0500% chelated zinc	

Derived from: ammonium nitrate, potassium phosphate, potassium nitrate, boric acid, magnesium sulfate, iron EDTA, manganese EDTA, zinc EDTA, copper EDTA, ammonium molybdate

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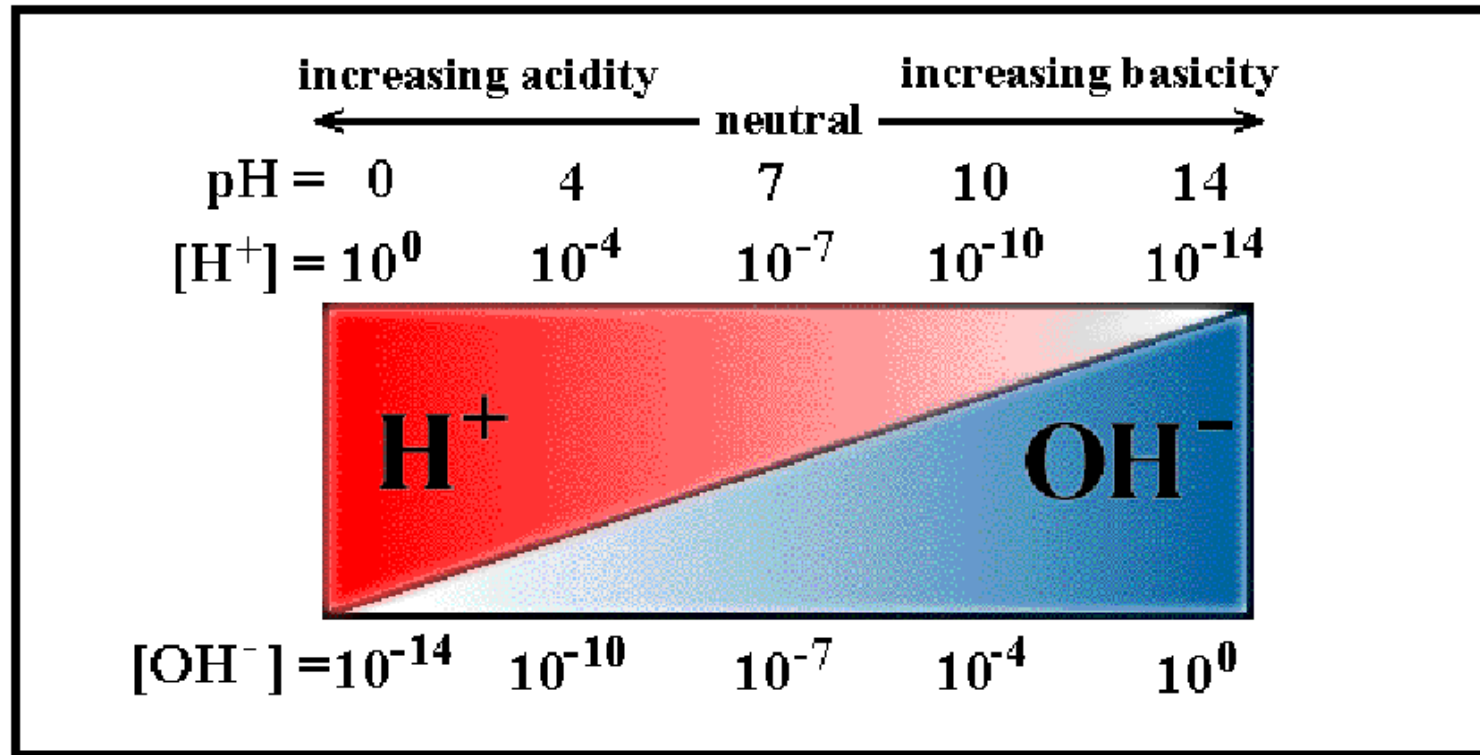
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# Calcium Carbonate Equivalent

# Different formulas alter root zone pH

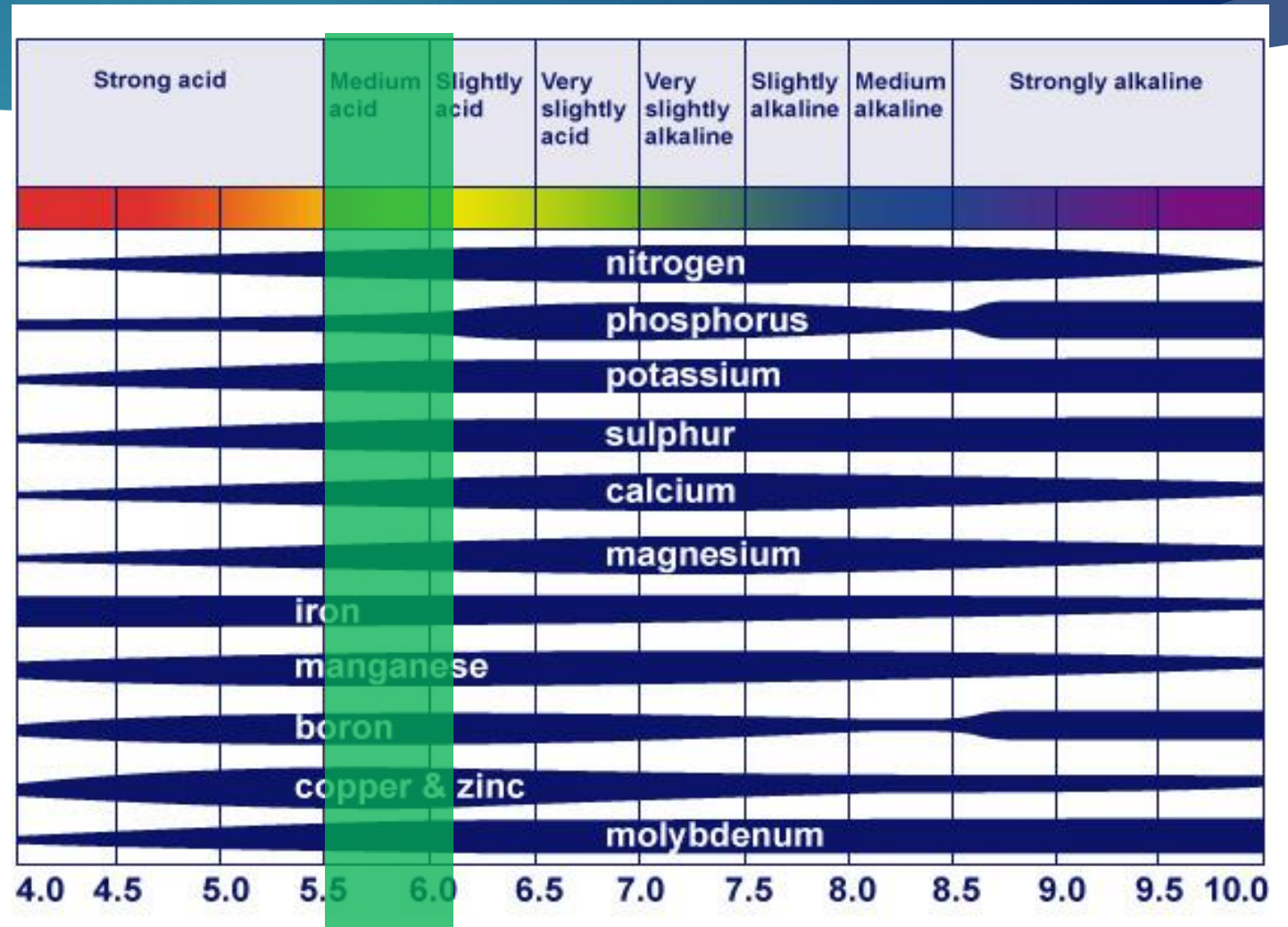


- Formula's can be acidic, neutral or basic



## Optimal pH

- Why is pH so important ?
- pH effects nutrient solubility
- pH effects plant ability to take up nutrients



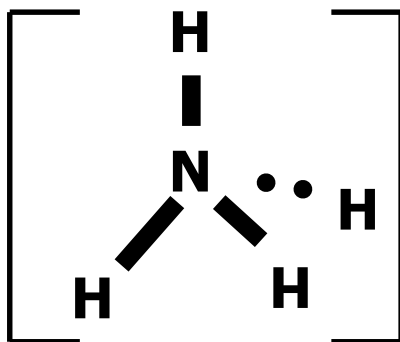
# pH Swing due to Formula Choice



pH can Rise and Fall according to the Raw material choices

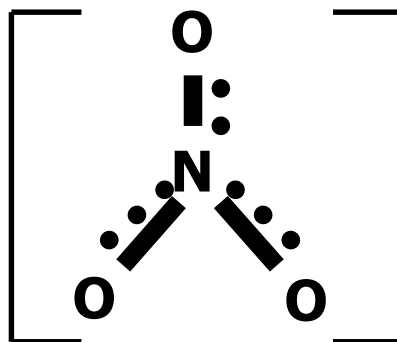
## Acidic Raw Materials:

- Urea Phosphate
- Ammonium Nitrate
- Ammonium Phosphate



## Basic Raw Materials:

- Calcium Nitrate
- Magnesium Nitrate





- Urea & Ammonium ( $\text{NH}_4\text{-N}$ ) results in **pH decrease**
- Nitrate ( $\text{NO}_3\text{-N}$ ) results in **pH increase**

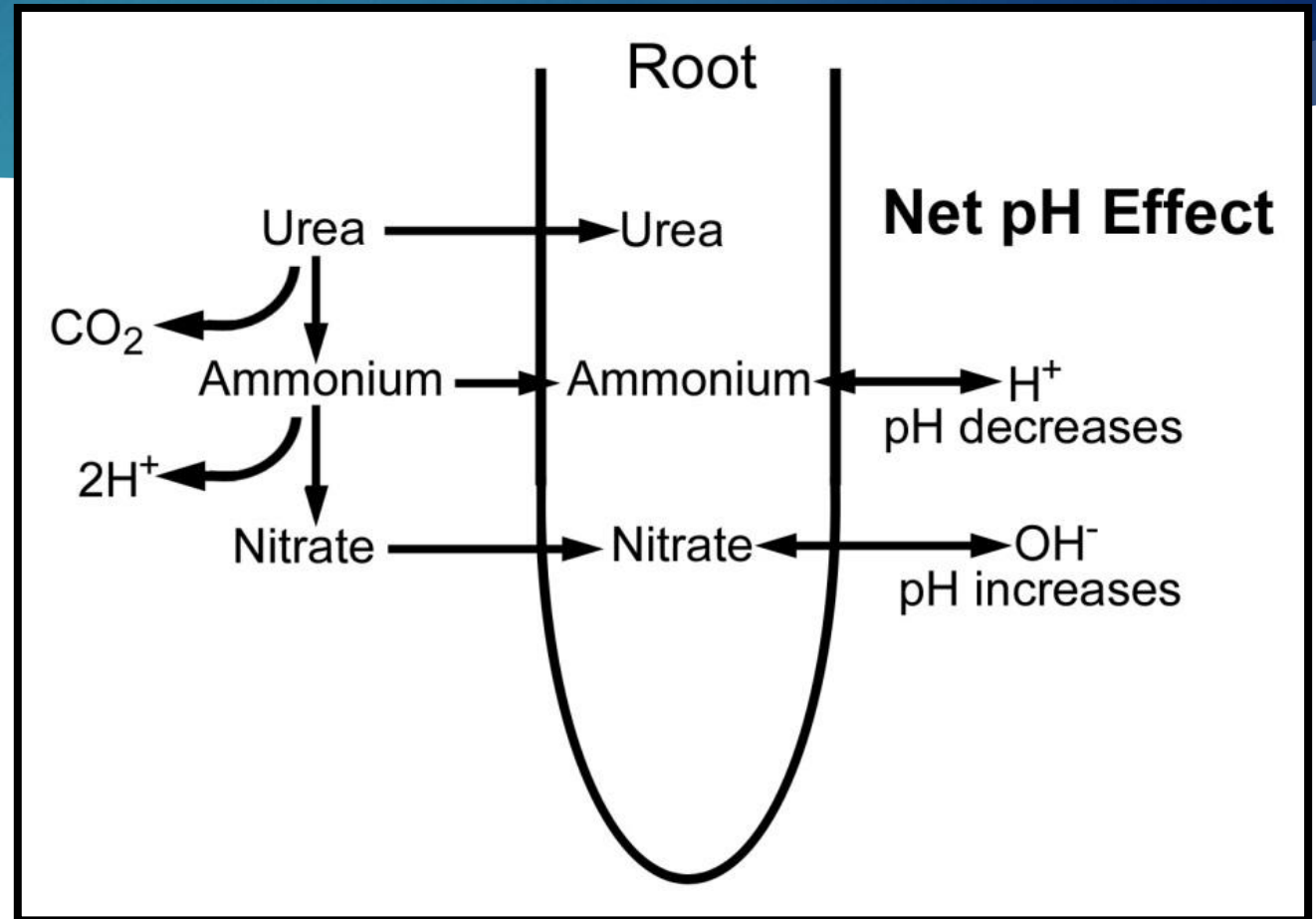


Figure by Dr. Neil Mattson, Cornell University



# pH Swing due to Formula Choice



## Phosphorus Sources to lower pH

Extremely acidic when concentrated. Often chosen to help keep materials in solution without precipitating out.

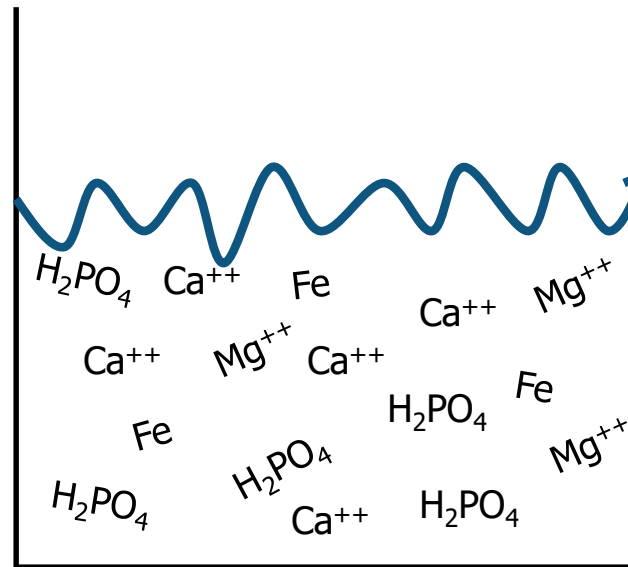
- Urea phosphate
- Phosphoric acid compounds



# Keeping Ca & Mag in Solution

At low solution pH all nutrients can be mixed in one concentration tank without forming precipitates!

Solution  
pH  $\approx$  3-4





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<b>200 ppm</b>	2.00	13.50	27.00	1.28

Limit of Solubility = 4 lbs per gallon

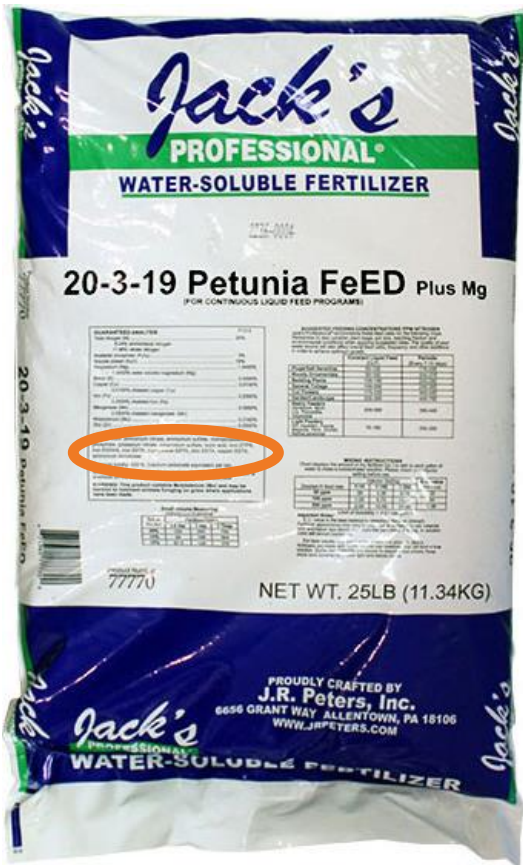
## Derived From Statement

**Derived from:** ammonium nitrate, ammonium sulfate, monopotassium phosphate, potassium nitrate, magnesium sulfate, boric acid, iron DTPA, iron EDDHA, iron EDTA, manganese EDTA, zinc EDTA, copper EDTA, ammonium molybdate

## Name & Address

Mfg. By JR Peters, Inc.  
6656 Grant Way  
Allentown, PA 18106  
1-866-522-5752  
www.jrpeters.com

## Weight



Manganese (Mn) .....	0.0500%
0.0500% chelated manganese	
Molybdenum (Mo).....	0.0100%
Zinc (Zn) .....	0.0500%
0.0500% chelated zinc	

Derived from: ammonium nitrate, potassium phosphate, potassium nitrate, boric acid, magnesium sulfate, iron EDTA, manganese EDTA, zinc EDTA, copper EDTA, ammonium molybdate

Potential Acidity: 401 lb. Calcium carbonate equivalent per ton

Manufactured by: J.R. Peters, Inc., 6656 Grant Way, Allentown, PA 18106  
Toll Free: 1-866-522-5752

# Calcium Carbonate Equivalent

# Calcium Carbonate Equivalent (CCE)

- ▶ Potentially Acidic
  - ▶ The lbs (#) of calcium carbonate to neutralize 1 ton of fertilizer
- ▶ Potentially Basic
  - ▶ the lbs (#) calcium carbonate contributed per ton of fertilizer
- ▶ **Measure of potential influence over time**
- ▶ Not ACTIVE acidity = how the fertilizer acts in water
  - ▶ Doesn't change water pH except for ferts with citric acid or highly acidic raw materials ( urea phos, or PK acid)





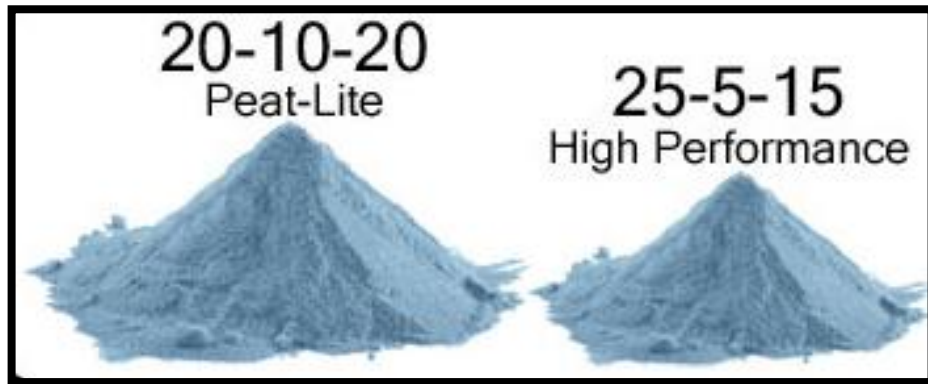
# Potential Acidity or Basicity of Fertilizers

- ▶ Acidic
  - ▶ 1539 lbs: 21-7-7 Acid Special
  - ▶ 415 lbs: 21-5-20 All Purpose LX
  - ▶ 166 lbs: Geranium Special 15-15-15
- ▶ Neutral
  - ▶ 0 lbs: 17-4-17 Pure Water LX
  - ▶ 10 lbs 16-4-17 Hydroponic
- ▶ Basic
  - ▶ 78 lbs 15-5-15 Ca – Mg Lx
  - ▶ 319 lbs 15-0-15 Dark Weather
  - ▶ 319 lbs 13-2-13 Plug





# Potentially acidic fertilizer + Increase Efficiency



## 25-5-15 High Performance

- Equal micronutrient delivery
- Higher N to increase use efficiency

- ▶ Increase in %N allows you to use 20% less fertilizer.
- ▶ Like using 4 bags instead of 5 compared to 20-10-20



## Fertilizer Selection depends on your Water Quality



Finding your perfect formula match means understanding what beneficial ions and what harmful ions exist in your water source



*Water analysis and recommendations from*

**JR PETERS** Laboratory

- ✓ Free Water kits and instructions
- ✓ 24- 48 hour turnaround time for water test results
- ✓ Personalized recommendations for the crop cycle on nutrient choices & grower set-ups

# The Blue Stuff



**JR PETERS INC**





# Specialty Crop Fertilizers



Petunia Feed 20-3-19


Poinsettia Feed 15-4-15 + Ca  
Mg

Poinsettia Feed 17-5-19 + Mg

Fall Pansy FeED 17-3-19

Spring Pansy FeED 15-2-20

Mum Feed 22-5-16



Form	% Iron	pH ranges
Fe EDTA	13%	Availability decreases above pH 6.3
Fe DTPA	11%	Availability decreases just above pH 7
Fe EDDHA	6%	100% available between pH 4-9

## Jack's Professional FeEDs

Each product contains increased levels of iron, derived from three chelate sources (EDDHA, EDTA and DTPA) to keep it available over a wide range of pH values



Desired N feed rate	Injector Setting			E.C. value (mmhos)
	1:15	1:100	1:200	
50 ppm	.50	3.38	6.75	.32
100 ppm	1.00	6.75	13.50	.64
200 ppm	2.00	13.50	27.00	1.28

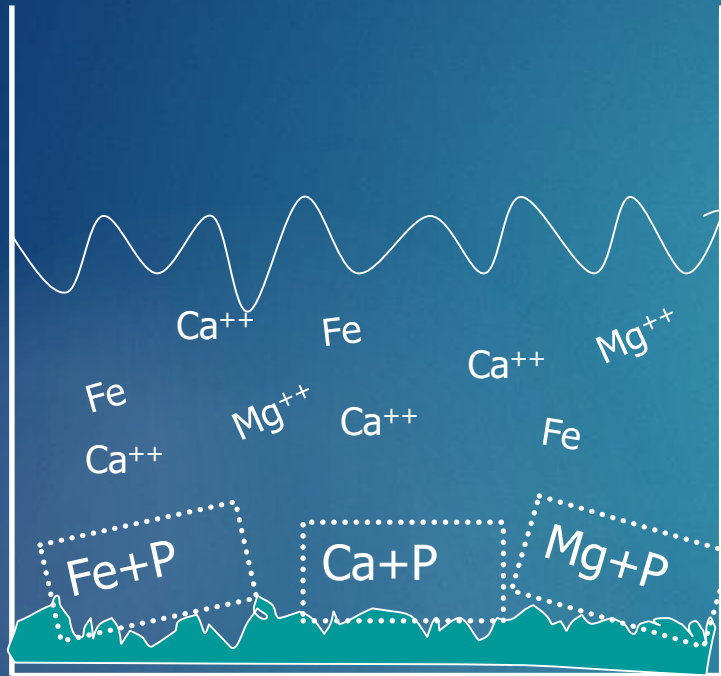
Limit of Solubility = 4 lbs per gallon



# Mixing Instructions



# Mixing mistakes



# Mixing Mishaps

- ▶ Materials that cannot be mixed in concentrate

- ▶ Calcium – Sulfur

  - ▶ CaNO<sub>3</sub> with Epsom salts, sulfate micros, battery acid

- ▶ Calcium – Phosphorus

  - ▶ 20-20-20 with 15-5-15 in concentrate

Exception when using materials that lower pH

Urea phosphate, citric acid.





# A Few Words about Dye

Indicator that solution contains fertilizer – not a way to determine strength of the solution

- ▶ Factors that can affect color of the fertilizer in the bag
  - ▶ Raw materials
  - ▶ Environmental conditions when made
  - ▶ Age of Product
  - ▶ Transportation and storage of product
- ▶ Best way to monitor strength of solution = EC





# If it costs less is it a better deal?

## Urea can be ok?

- A less expensive form of Nitrogen
- When used in the right balance with other forms of N it can be ok
- Urea is easier on plant uptake when used in the warmer temps.
- Less potential to damage root zone

## Stay away from

- Muriates (Chlorides)
  - Excess Cl competes with  $\text{NO}_3$  in the root zone
- Soda (Sodium)
  - Excess Na competes with Ca, Mg and K
- Agricultural Grade materials
  - Higher grade raw materials are the most soluble – look for technical grade

## Micronutrients

- Sulfated versions of micronutrients are soluble when used at the right pH range (5 – 6.0)
- Chelated versions of Micros are more stable over a larger range of pH (5 – 6.5+)
  - May be more expensive

Derived from: ammonium nitrate, potassium phosphate, potassium nitrate, boric acid, magnesium sulfate, iron EDTA, manganese EDTA, zinc EDTA, copper EDTA, ammonium molybdate

Potential Acidity: 401 lb. Calcium carbonate equivalent per ton

JR Peters takes  
pride in our  
family  
reputation

Innovative products  
and blends that are  
on the cutting edge  
of fertilizer  
technology





# Jack's™ CLASSIC

- ▶ Retail line only available to independent garden centers
- ▶ Same high quality ingredients as Jack's Professional
- ▶ Professional chelated micronutrients essential for performance in the garden





Sunny Season Produce – *designed for warm season fruit and vegetable crops grown in the field or high tunnels*

- 15-20-28 Grow & Bloom
- Low Phos Grower 21-8-18
- Finisher 7-15-30

*Proven yield increases over standard traditional agricultural fertilizers*

# Jack's

## HYDROPONICS

- ▶ Hydro FeED Complete Formulas
  - ▶ Part A and B Systems
- ▶ Hydro Boost
  - ▶ Easy to use supplements
- ▶ Oasis Hydroponic 16-4-17
  - ▶ 1 bag formula for rapid successful propagation of lettuce and herbs



1kg & 25 lb bag sizes

The Science  
behind  
BETTER  
Plant  
Performance

Jack's™  
CLASSIC

Jack's  
HYDROPONICS



JR PETERS INC



Jack's  
PROFESSIONAL®

POWERED  
BY  
Jack's

JR PETERS Laboratory

# Three Generations of Peters marking 68 years of producing the highest quality fertilizers!



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