

# Liquid Fertilizer Blends

Equipment and Demonstration

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# Quick Overview:

- Introduction
- Equipment
- Chemistry – The Basics
- Demonstrations
- Questions

# INTRODUCTION

- Chris Louie
- BA and MS in Chemistry
- Tessenderlo Kerley, Inc. since 2007
- Fertilizer/Pesticide Formulation Business for +10 years
- Part-time Instructor at Willow International

# EQUIPMENT

- Keeping it simple – Household Kitchen supplies! DO NOT USE FOR FOOD ANYMORE!!!
- Measuring Cups and Spoons
- Bowl or Pot
- Mixing Spoon or Chop Stick
- You can determine if it might work or not...
- What about temperature, concentration, order of addition, and compatibility issues?

# EQUIPMENT

- More sophisticated equipment – Lab Equipment –  
Less expensive → Really Expensive
- Large/Small Beakers, Graduated Cylinders, and  
Volumetric Flasks
- Spatula, Mixing Spoons, and stir rods
- pH meters, Hydrometers, Scales, and Thermometers
- Refrigerator and Oven
- More precise measurements and controlled  
environment

# LAB EQUIPMENT...



# CHEMISTRY – The BASICS

- Solubility Rules
- Concentration/Temperature
- pH
- Order of Addition

# When I get a Blend Request...

- What is it the customer wants? NPK? Trace metals?
- What does the customer have on hand?
- Think about the “BASICS”...solubility rules, concentration/Temperature, pH and order of addition
- The ALL-IMPORTANT Jar Test



# DEMONSTRATION

- CaTs<sup>®</sup>, KTS<sup>®</sup>, and MagThio<sup>®</sup>
- UAN<sub>32</sub> and 10-34-0
- Water



QUESTIONS???



**THANK YOU  
HAVE A NICE  
DAY!**

# CONTACT INFORMATION

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