

## THE BACKYARD GARDEN BLUEPRINT Session 5: Dealing With Pests and Diseases

#### **OVERVIEW:**

- 1. 3 Step NOW Formula for insect pest control
- 2. #1 Defense against insect pest problems in the garden
- 3. Handling diseases and disease prevention

### 1. THE 3-STEP PROVEN "NOW" FORMULA FOR Organic Bug Control

#### THE "NOW" FORMULA

- ► Three simple steps NOW
  - 1. Nuke 'em (naturally of course :)
  - 2. Organically fertilize
  - 3. Water it in



#### **BONUS! BEST FERTILIZERS**

#### ► BioThrive

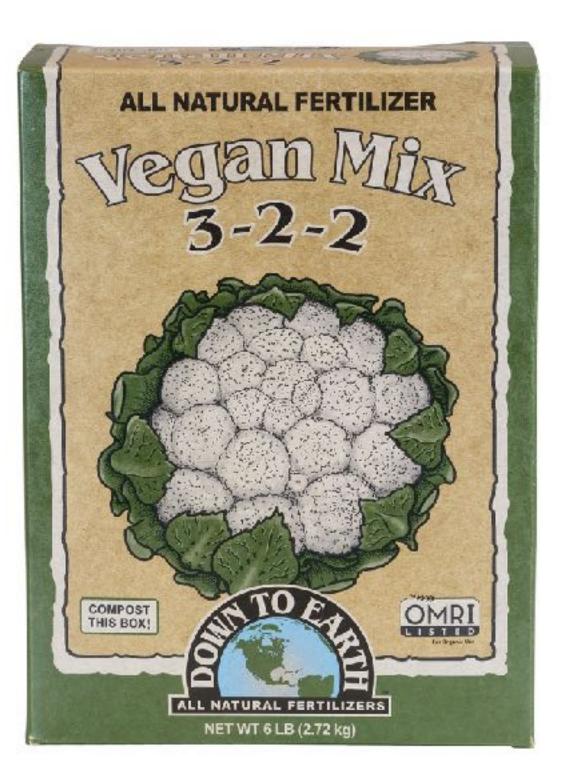
- ► Liquid natural fertilizer
- Down to Earth Vegan Mix
  - ► OMRI Listed
  - ► 100% Plant Based
  - Excellent balance of nutrients
  - Soy bean meal, canola meal, alfalfa meal, rock phosphate, langbeinite, greensand, kelp meal and humic acids





#### **BONUS! BEST FERTILIZERS**

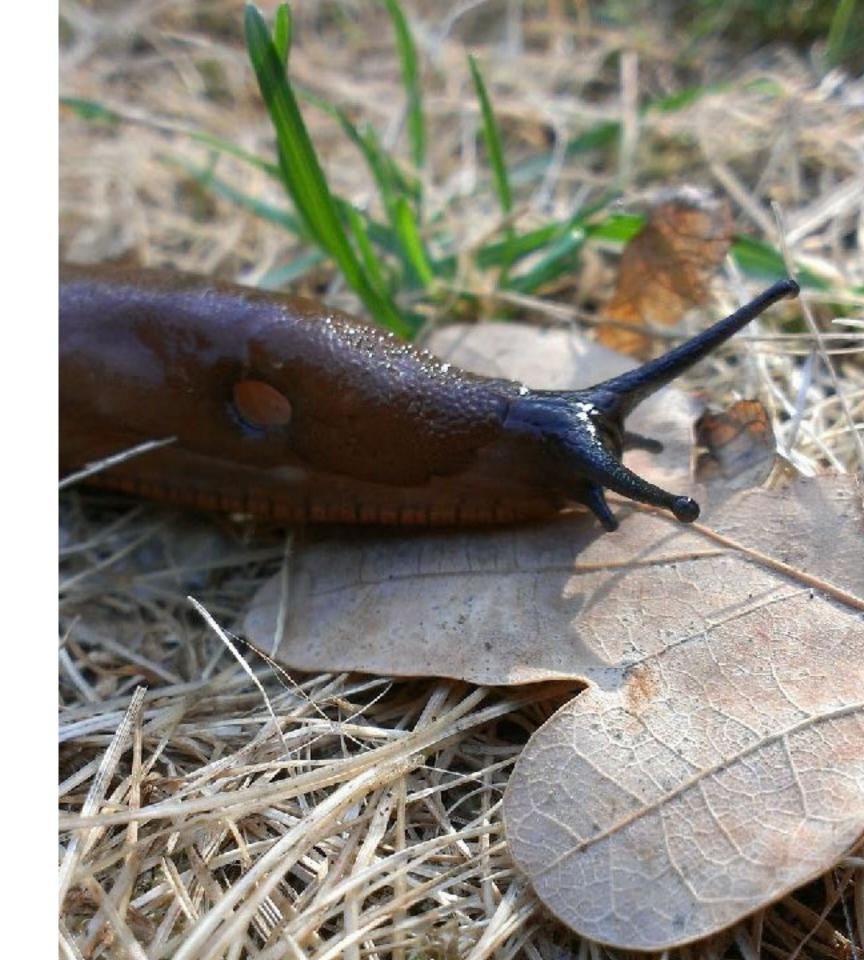
- ► How to use it
  - ► 4-6 lbs per 100 feet of bed
  - 1-2 Tbs. per plant when transplanting
  - Side dress adult plants with about 1/2 cup
  - For containers: 2-4 Tbs. per gallon of soil mix
- Apply once per month during the growing season



## 2: FINDING SLUG FREEDOM WITH PROVEN ORGANIC PELLET SOLUTION

#### **TREATMENT PLAN**

- ► Nuke 'em with Sluggo
  - Use Sluggo or Sluggo Plus iron phosphate control pellets
- Organically fertilize your plants to boost their immune system health
  - Use BioThrive or DTE Vegan Mix
- ► Water your plants well



# **3: ULTIMATE SQUASH AND STINK BUG CONTROL**



#### **TREATMENT PLAN**

#### ► Nuke 'em

- Use food-grade Diatomaceous Earth, insecticidal soap, or hand picking
- Organically fertilize your plants to boost their immune system health
  - Use BioThrive or DTE Vegan Mix
- ► Water your plants well



#### **BONUS TIPS**

- Keep the garden clean of old plants / debris
- Use row covers in the early part of the season as a physical control
- Crush or remove eggs
  - Can be done with a wad of duct tape, sticky side out (idea from Reformation Acres Blog)



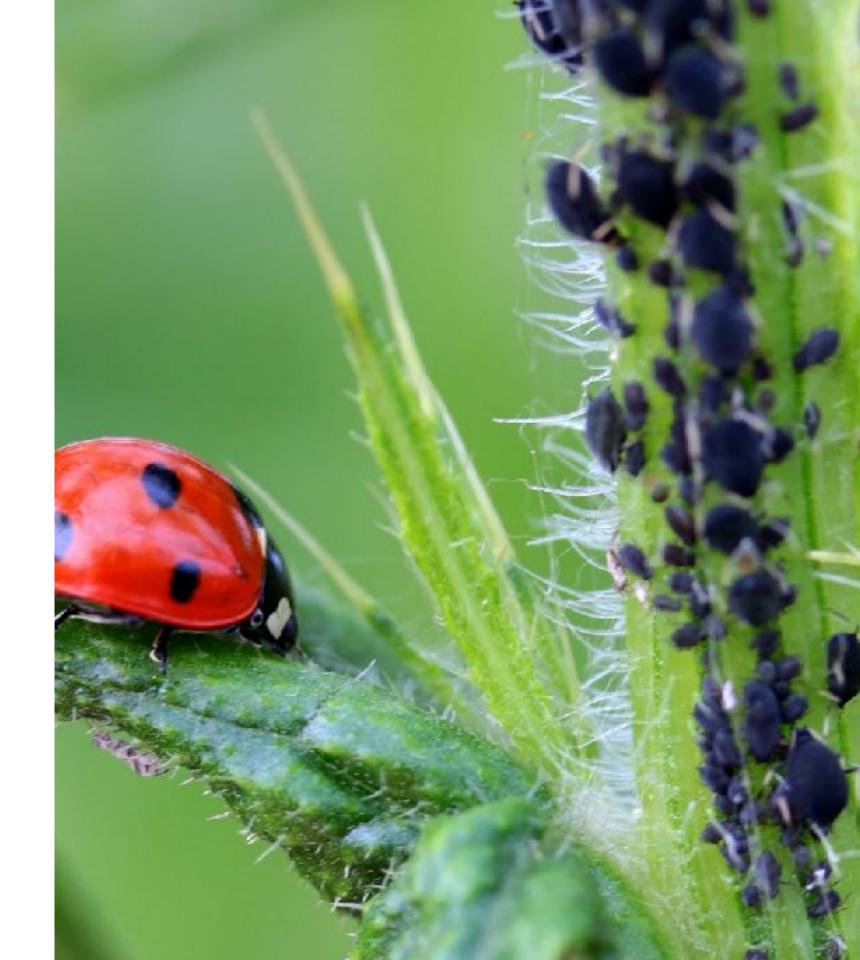
## 4: HOW TO USE OUR 3-STEP PROVEN "NOW" FORMULA TO KISS APHIDS GOODBYE FOREVER

# THE STORY



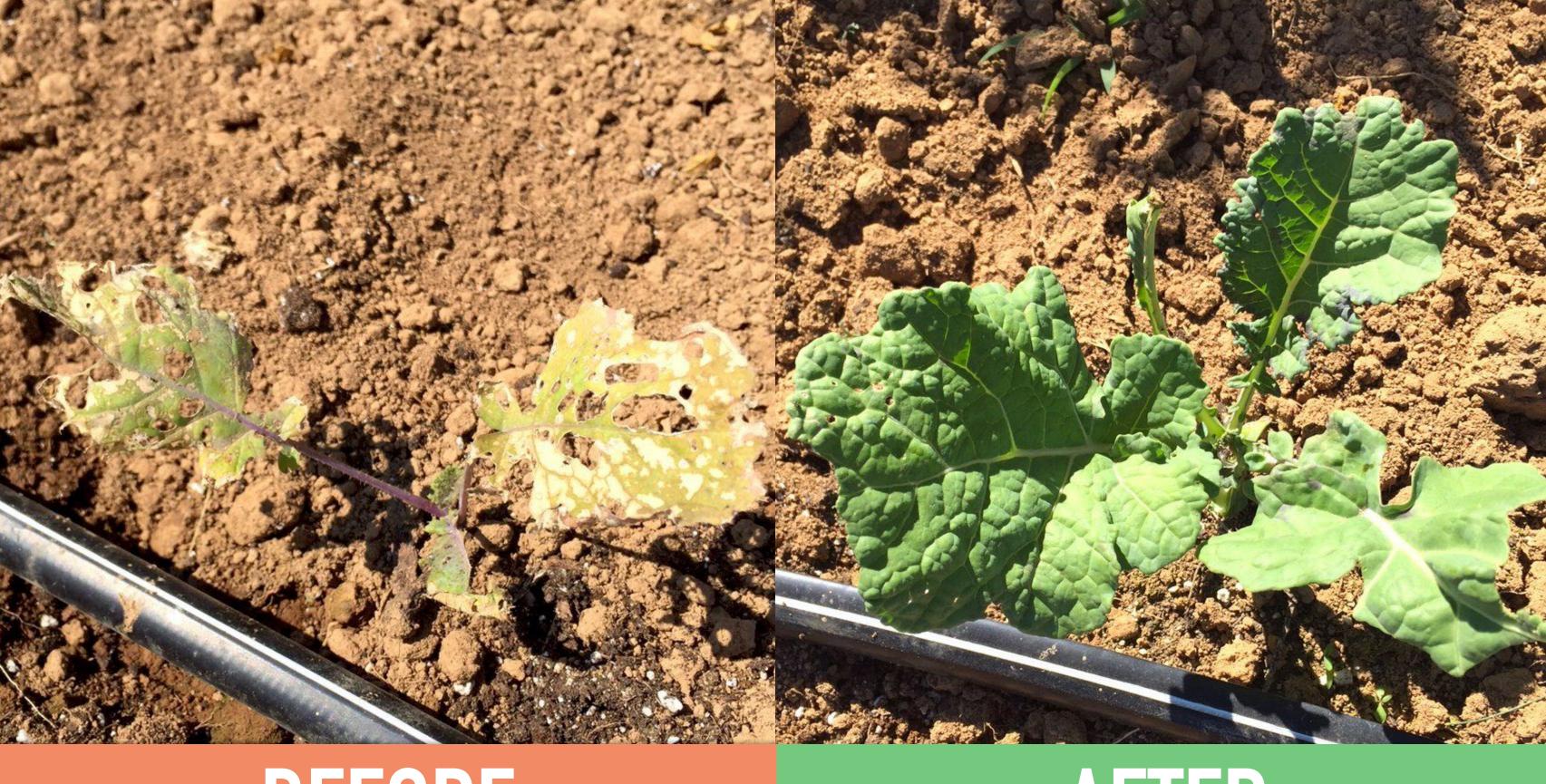
#### **3 STEP PROVEN FORMULA**

- 1. Nuke 'em with soapy water
  - Use Safer Brand Insect Killing Soap or mix a couple squirts of dish soap with water in a spray bottle
- 2. Organically fertilize the plant to boost it's immune system
  - Use BioThrive or DTE Vegan Mix
- 3. Water the plant well









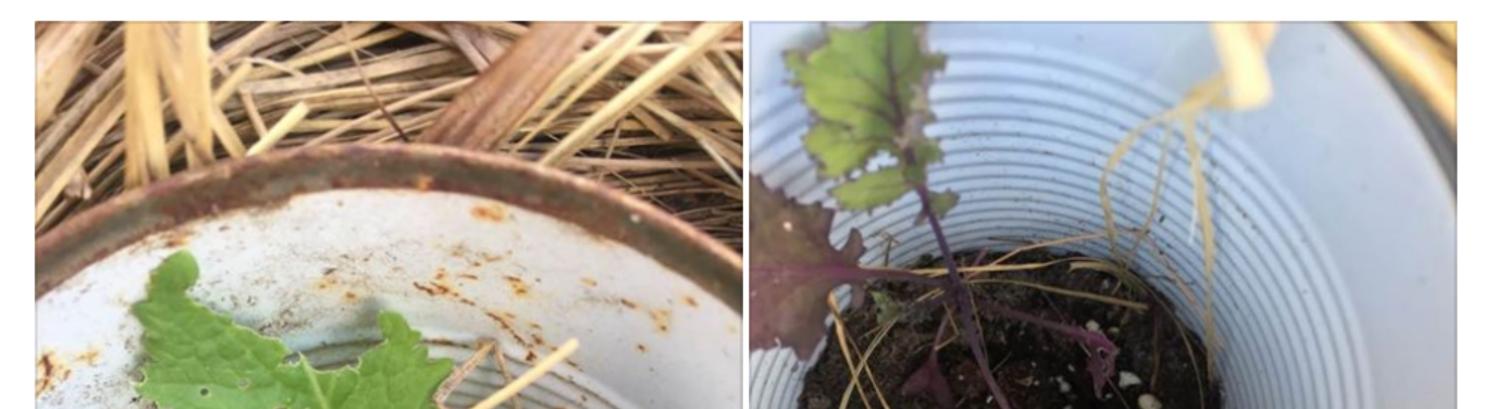


## AFTER



#### LaRee Colburn June 19 at 10:22pm

As promised here is the before and after pictures of my cabbage and kale that had aphids on them. I did as Paul suggested in his case study and I sprayed the leaves with soapy water, then fertilizer with biothrive and made sure they were getting enough water. It worked perfectly! These pictures were taken a few days ago so they look even better now 😆. So thankful for this gardening course!



#### 5: WHAT <u>NOT TO DO</u> WITH TOMATO HORNWORMS AND OUR NO-FAIL WORM/CATERPILLAR TREATMENT PLAN



#### WHAT TO DO?

- find

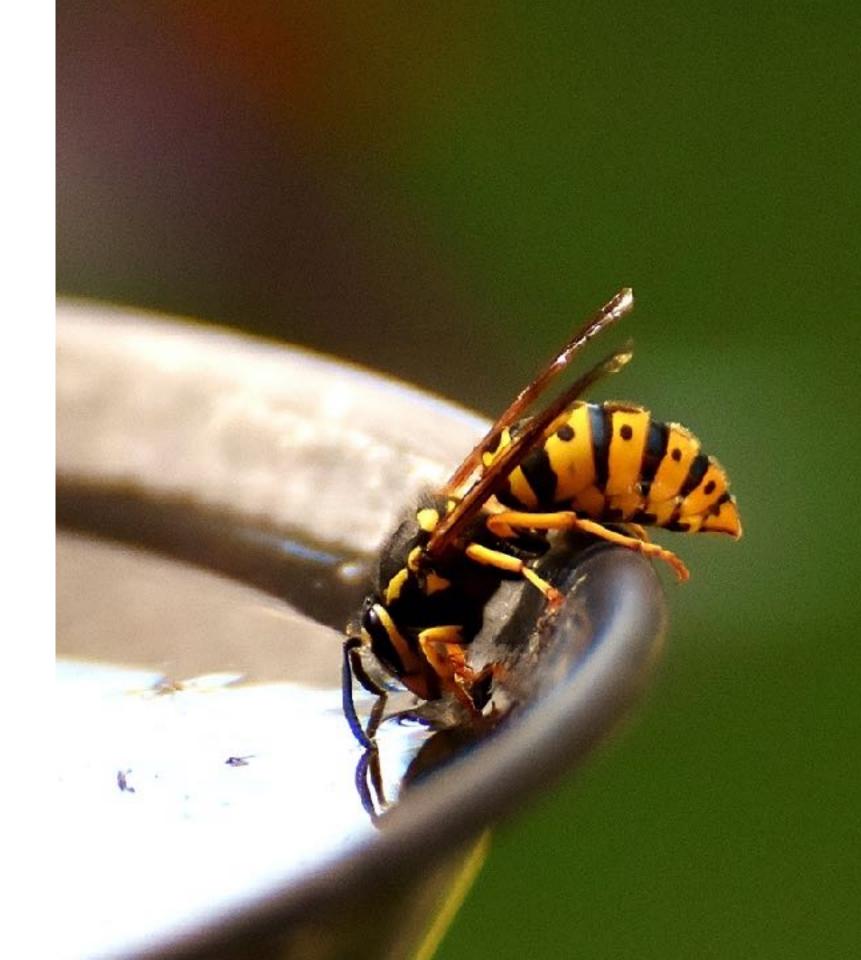
#### ► Asses the situation ► See how many hornworms you can

► Look carefully! Look for infected ones



#### YOUR FRIEND THE WASP

- ► The Braconid Wasp
  - Lays eggs in tomato hornworm
  - Larvae eat the hornworm alive
  - Larvae pupate when they mature spinning the little white coons on the hornworm





#### **NO-FAIL TREATMENT PLAN**

- ► Use the NOW formula
- ► Nuke 'em with DiPel
  - Organic worm treatment
  - Bt (Bacillus Thuringiensis) is a natural soil born bacteria
  - Bacteria breaks down the gut of the worm, it stops eating and eventually dies
- Spray or dust the plants with powder



#### **NO-FAIL TREATMENT PLAN**

#### ► Nuke 'em

- Organically fertilize your plants to boost their immune system health
  - Use BioThrive or DTE Vegan Mix
- ► Water your plants well







### 6: BUSTING BEETLES AND OTHER BUGS WITH Organic D-Dusting

#### **BEETLES AND BUGS**

- Squash bugs, Potato beetles and Japanese beetles
- ► What can you do?
  - ► Vacuum them up
  - Spray them with insect killing soap
  - Dust plants with food-grade diatomaceous earth



#### **3 STEP PROVEN FORMULA**

- 1. Nuke 'em with DE dust
  - Use food grade diatomaceous earth in an old sock or with a duster
- 2. Organically fertilize the plant to boost it's immune system
  - Use BioThrive or DTE Vegan Mix
- 3. Water the plant well



### #1 DEFENSE AGAINST INSECT PEST PROBLEMS IN THE GARDEN

#### SET THE FOUNDATION RIGHT

- Bugs are a symptom of a deeper problem
- Where do plants get their nutrients?
  - A healthy soil will make for healthy plants
  - ► Soil nutrients
  - ► Soil structure
- Encourage biodiversity











## AFTER









## AFTER



### HANDLING DISEASES

- 1. The key to truly dealing with most disease problems is not to focus on them. Choosing to have a plant-positive approach to your garden will go a long way in preventing disease in the first place
- 2. There are natural controls for every disease, that's why disease doesn't run rampant and take over the world. For every pathogenic microbe, fungi or virus, there is some beneficial organism or mechanism that will counteract it

#### HANDLING DISEASES

- 1. Remember it all starts with stress, and plants are least stressed and thrive best where their needs are met in the growing conditions they are living in
- 2. These growing conditions include: the amount of light the plant gets, humidity levels, temperature, and every aspect of how the soil is structured including the amount of air, water, organic matter, and rock fragments that make the home for the plant's roots

#### HANDLING DISEASES

1. Our job as the gardener is to seek to create the most ideal conditions for our plants to thrive



1. Crop Rotation – many disease pathogens and pests spend part of their life cycle in the soil. By never planting the same crop consecutively in the same spot, you can reduce disease pressure on your crop.



- 1. Choose Disease Resistant Varieties
  - 1. If you know that you often encounter a particular disease in your garden, look for plant varieties that are resistant to that disease
  - 2. Seed catalogues mention in their descriptions which diseases a particular variety are resistant to

#### **1. Avoid Warm Moist Environments**

- 1. Disease thrives in warm, moist environments. Many diseases are spread via water
- 2. A dry environment (such as provided by a hoophouse) can often be beneficial in reducing disease pressure
- 3. Tomatoes, squash and melons are examples of crops that can benefit from growing in a hoophouse in wet, humid environments

1. Dead and decomposing plant matter can host disease. While this is true, it does not seem that a mulch of straw, hay, or chips will usually host disease



- Stagnant air can foster mildews and molds
- Good ventilation and air movement through your garden is helpful in preventing this



### **CLASS HANDOUTS**

## borntogrow.net/adagra