

# Sustainability in Public Works: An IPM Approach



Work Study Session - June 2<sup>nd</sup>, 2016

# Overview

- Integrated Pest Management (IPM)
- Retooling our Cultural Practices
- Rethinking our Chemical Approaches

# IPM

- Decision making process that utilizes a holistic approach to managing pests
  - Considerations: Health/Safety, Environmental, Financial, & Social
  - Approaches: Cultural, mechanical, biological, & chemical options

# Retooling Cultural Practices



# Rethinking Chemical Approaches

- Organic Herbicide Pilot Parameters
- Products: types, mode of action, & cost

**WEED ZAP®**  
A Non-Selective Herbicide For Annual Grasses And Weeds



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**Product Information**

WEED ZAP is a contact, non-selective, broad spectrum, foliar-acting herbicide. This product will only control actively growing annual grasses and weeds. It controls both annual and perennial broadleaf and grassy weeds. This product does not translocate. It will affect only those plants that are coated with the spraying solution.

<b>ACTIVE INGREDIENTS</b>	
Clave Oil	45%
Cinnamon Oil	45%
<b>OTHER INGREDIENTS:</b>	10%
Lactose and Water	
<b>TOTAL</b>	100%

**KEEP OUT OF REACH OF CHILDREN**

This product ingredients are exempt from registration with the Federal EPA under section 25 (b) of FIFRA. WEED ZAP has not been registered with the Environmental Protection Agency. JH Biotech, Inc. represents that this product qualifies for exemption from registration under the Federal Insecticide, Fungicide and Rodenticide Act.

International & United States Patents Pending

**SHAKE WELL BEFORE USE**

NET CONTENTS: 2.5 Gallons (9.45 liters)  
Weight per Gallon: 8.4 lb ( 3.81 kg) @ 68°F  
Lot #: \_\_\_\_\_



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**Directions and General Recommendations**

**APPLICATION RATE/TABLE**

Add 5 gallons of WEED ZAP concentrate to 100 gallons of spray water. Apply enough WEED ZAP to cover the entire surface of the weeds. Spray to the point of run off. The use of a sprayer/brusher may increase contact and efficacy of treatment.

<b>FINAL MIX VOLUME</b>	<b>FL. OZ.</b>
1 Gallon	24
5 Gallons	32
10 Gallons	24
25 Gallons	160
100 Gallons	64

Put water into spray tank first, then add WEED ZAP. Use constant, brisk agitation. Repeat application as necessary. Coverage is essential to establish control.

**PRECAUTIONARY STATEMENTS**

Off target application of WEED ZAP will result in damage to growing plants. Do not apply this product through the irrigation system or over the top of crops. If using a public measuring cup, rinse immediately after use. WEED ZAP can soften polystyrene (PS) plastic.

Avoid contact with skin, eyes or clothing. In case of contact, immediately flush eyes or skin with plenty of water. Get medical attention if irritation persists.

**LIMITED WARRANTY**

Manufacturer or seller makes no warranty, whether expressed or implied, concerning the use of this product other than for the purposes indicated on the label. Neither manufacturer nor seller shall be liable for any injury or damage caused by this product due to misuse, misbranding or any application not specifically described on the label.

**PERSONAL PROTECTIVE WORK CLOTHING** Applicators and other handlers of this product must wear: Long sleeved shirt and pants, shoes and socks, protective eyewear and gloves.

**FIRST AID**

**IF SWALLOWED**

- Call a Physician or Poison Control Center.
- Drink one or two glasses of water.
- Do not induce vomiting.
- If person is unconscious, do not give anything by mouth or induce vomiting.

**IF IN EYES**

- Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes.
- Get medical attention if irritation persists.

**IF ON SKIN**

- Wash with plenty of soap and water.
- Get medical attention if irritation persists.

# Results



# Recommendations

- Emphasize landscape health
  - Organics ↑ / Inorganics ↓
- Continue organic herbicide pilot program
  - Organics ↑ / Inorganics ↓
- Formalize IPM program
  - IPM Program Cycle

# Fulfilling our Mission





QUESTIONS?