

Moss Melt Concentrate

# 2008 Moss Trials

December 8, 2008

# Oregon State University (OSU) Trials

## Moss Control & Turf Phytotoxicity

by Dr. Tom Cook and Brian McDonald

- **3 sets of trials were conducted by OSU:**
  1. Trial #1: Rate trials for Moss Control and Phytotoxicity with Moss Melt formulation – all applied by **backpack** sprays (Feb, 2008)
  2. Trial #2: Comparative trials between Moss Melt applied by **backpack** and **hose-sprayers** (May, 2008)
  3. Trial #3: High temperature phyto trials (Aug, 2008)
- **Response by the moss was fairly quick (< week):**
  - Data presented in slides will be evaluations at 2 weeks after treatment
- **Any turf injury showed up almost within 3 to 4 days:**
  - Data in following slides will be evaluations at 1 week treatment
- **Standards in all trials were:**
  1. Worry Moss & Algae (**15% sodium lauryl sulfate & 6% citric Acid**)
  2. Garden Safe Moss & Algae (**22% potassium soap of fatty acids**)
  3. Lilly Miller Moss-Out (**9.75% ferric sulfate**)

# Trial #1

## Efficacy Rate Trial

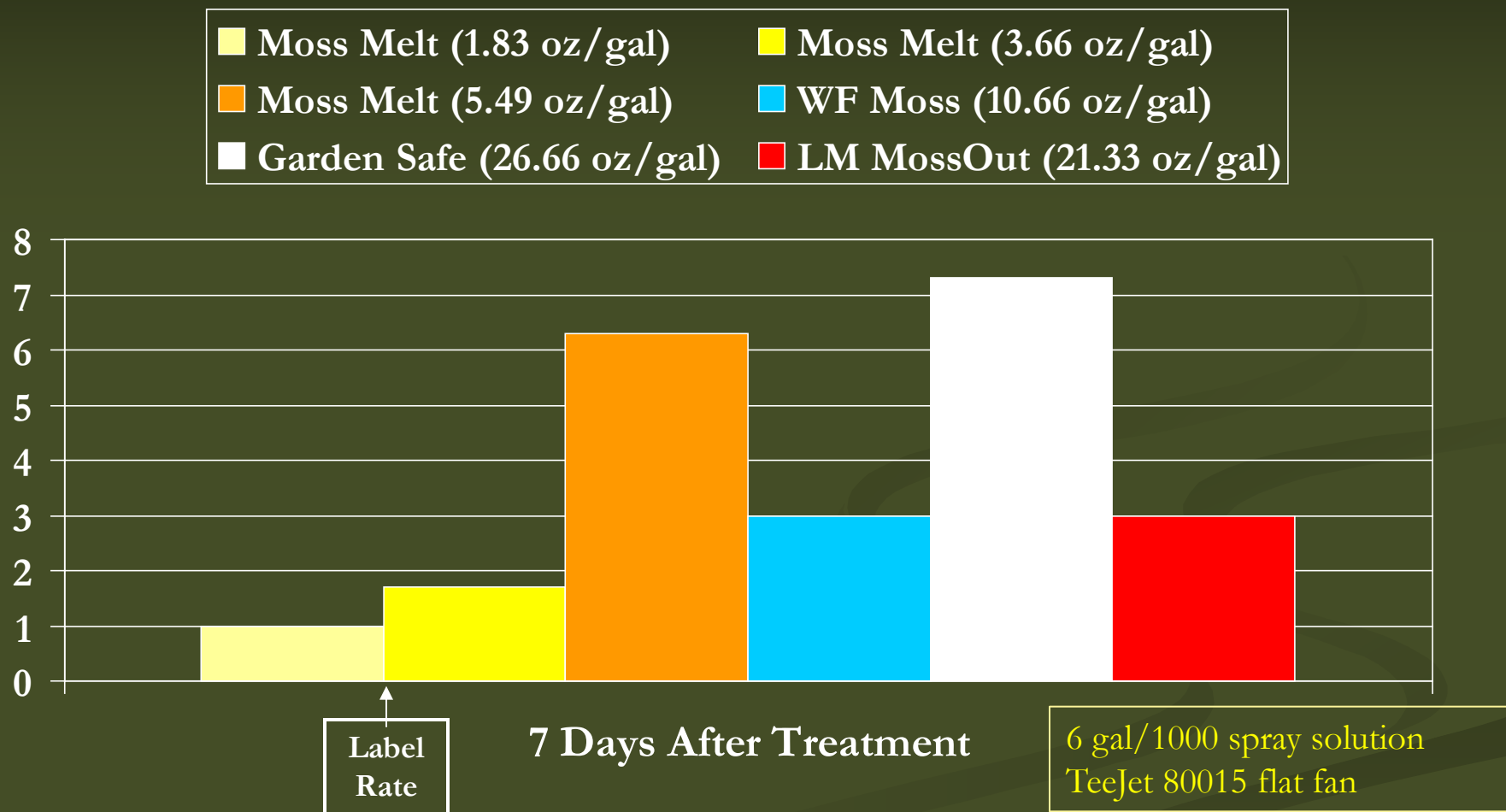
## Turf Injury Rate Trials

all applications by **backpack** sprayer (6  
gallons/1000 sq.ft.) comparing **Moss Melt** to  
**other consumer products**

Initiated February, 2008

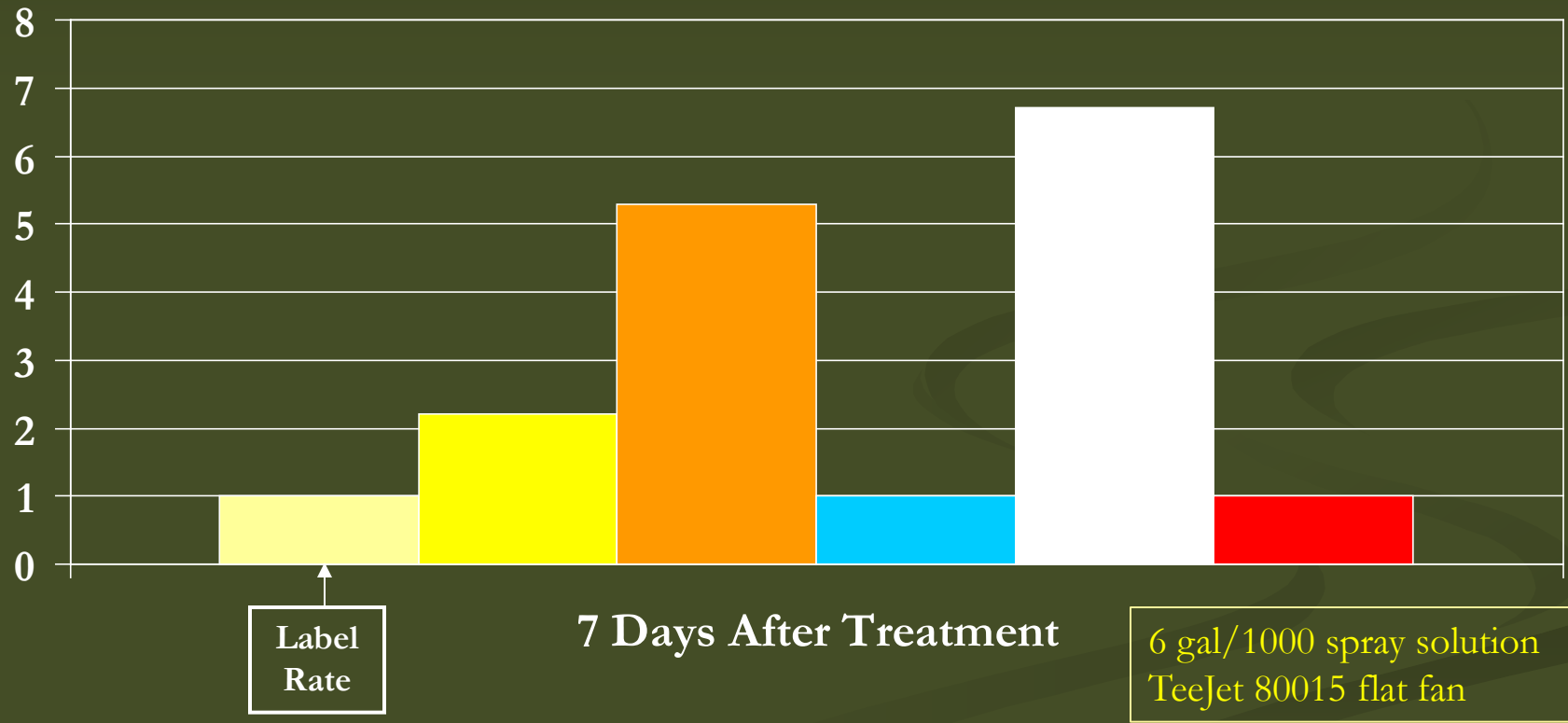
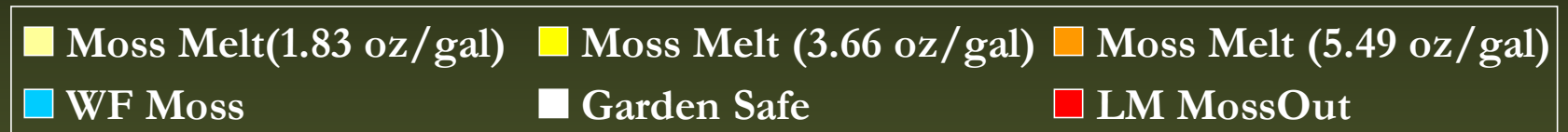
# #1 Turf Phytotoxicity – Bentgrass Injury (Backpack)

Oregon State University (OSU) Trials



Note: WF Moss & Algae, Garden Safe and Lilly Miller Moss-Out applied at 1X label rate.  
Ratings scale: 0 – 9 (1 = no effect; 9 = complete kill)

# #1 Turf Phytotoxicity – P. annua & P. Rye Injury (Backpack)



Note: WF Moss & Algae, Garden Safe and Lilly Miller Moss-Out applied at 1X label rate.  
Ratings scale: 0 – 9 (1 = no effect; 9 = complete kill)

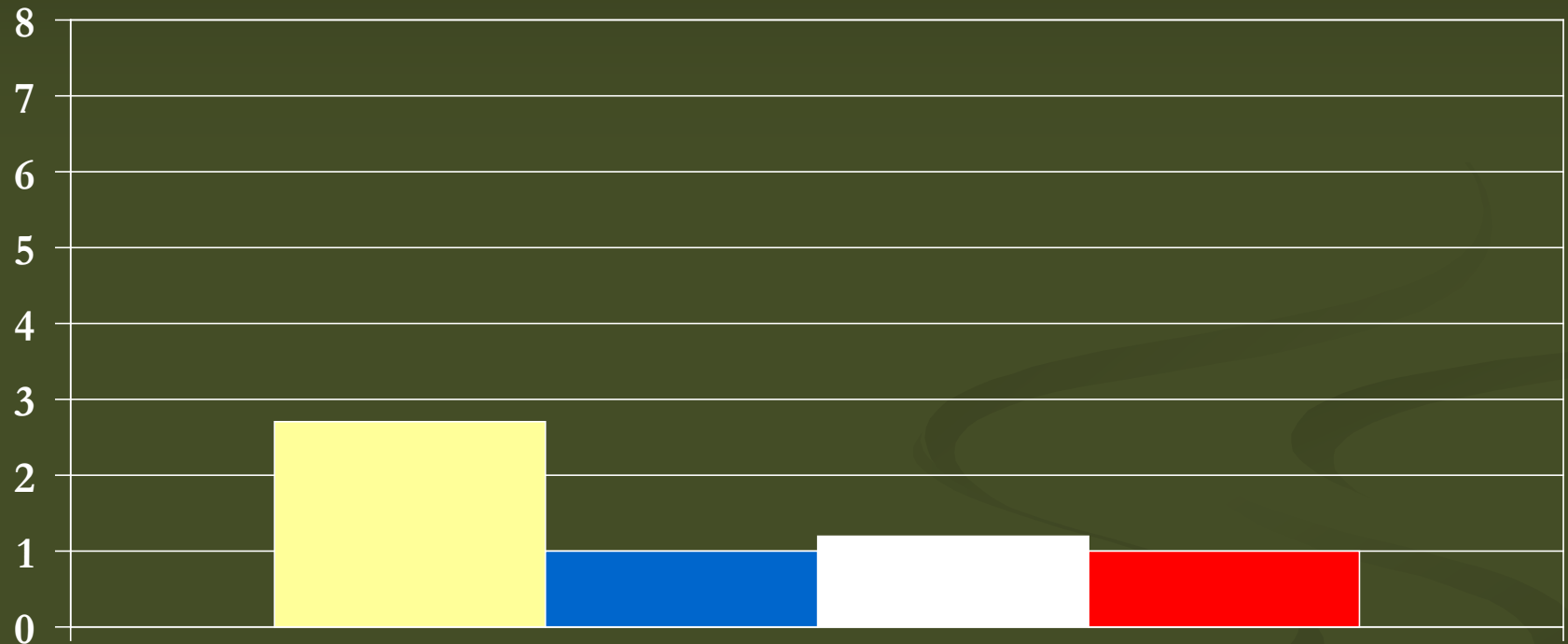
Trial #2  
Efficacy Rate Trial  
Turf Injury Rate Trials  
backpack and hose-end sprayer

Initiated May, 2008

## #2 Turf Phytotoxicity – *P. rye*, *P. annua*, *P. trivialis*, and bentgrass (Backpack)

Oregon State University (OSU) Trials

■ Moss Melt ■ WF Moss ■ Garden Safe ■ LM MossOut



14 Days After Treatment

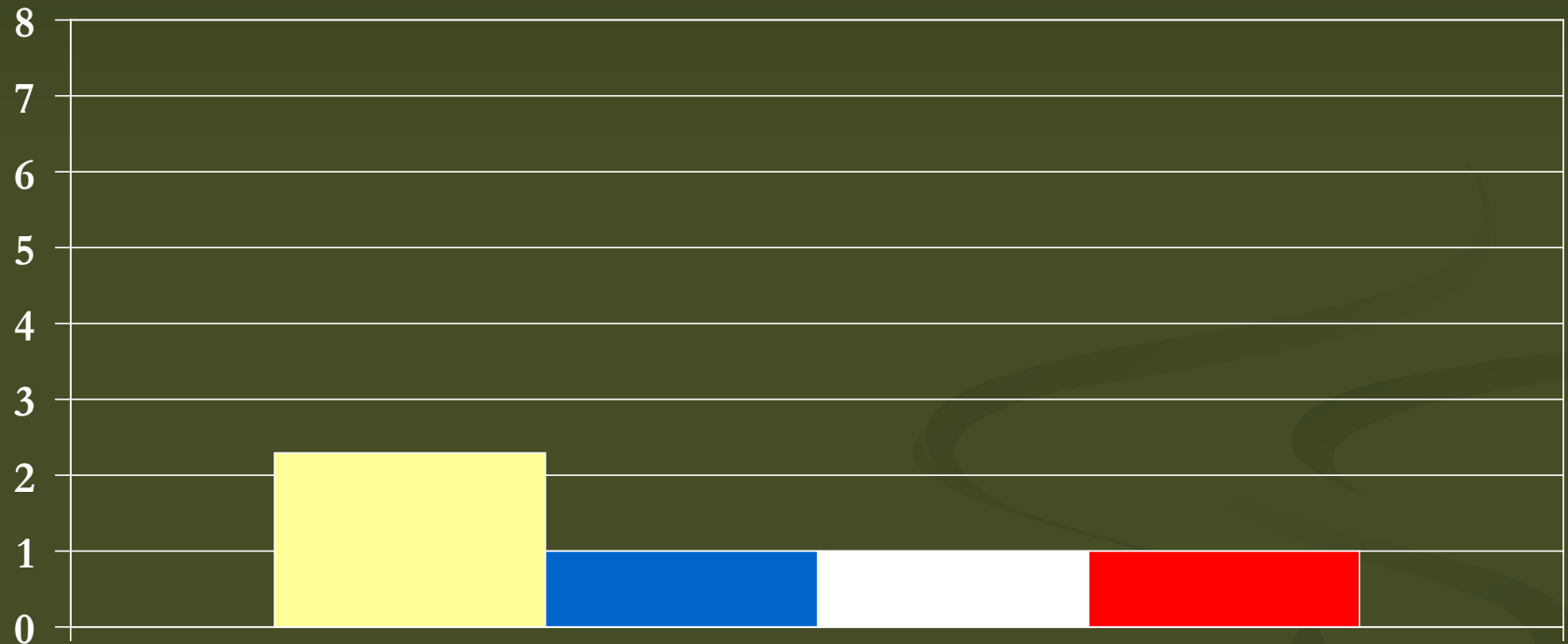
6 gal/1000 spray solution  
TeeJet 80015 flat fan

*Note: WF Moss & Algae, Garden Safe and Lilly Miller Moss-Out applied at 1X label rate.  
Ratings scale: 0 – 9 (1 = no effect; 9 = complete kill)*

## #2 Turf Phytotoxicity – *P. rye*, *P. annua*, *P. trivialis*, and bentgrass (Backpack)

Oregon State University (OSU) Trials

■ Moss Melt ■ WF Moss ■ Garden Safe ■ LM MossOut



8 Days After Treatment

6 gal/1000 spray solution  
TeeJet 80015 flat fan

*Note: WF Moss & Algae, Garden Safe and Lilly Miller Moss-Out applied at 1X label rate.  
Ratings scale: 0 – 9 (1 = no effect; 9 = complete kill)*



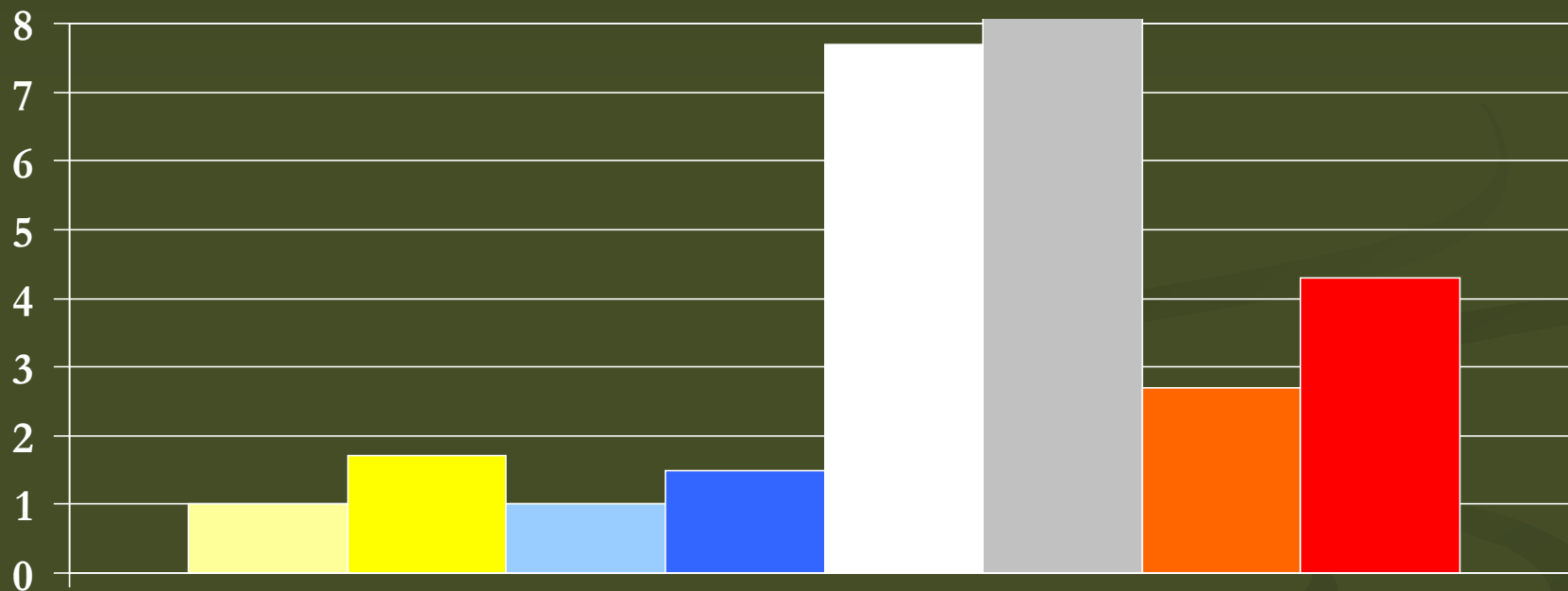
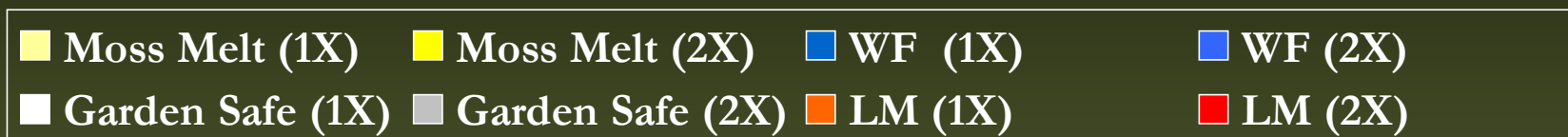
## Trial #3

**Turf Injury Rate Trials at High Temps**  
**backpack sprayer**  
**Moss Melt vs. Standards**

Initiated August, 2008

## #2 Turf Phytotoxicity – *P. rye*, *P. annua*, *P. trivialis*, and bentgrass (Backpack)

Oregon State University (OSU) Trials



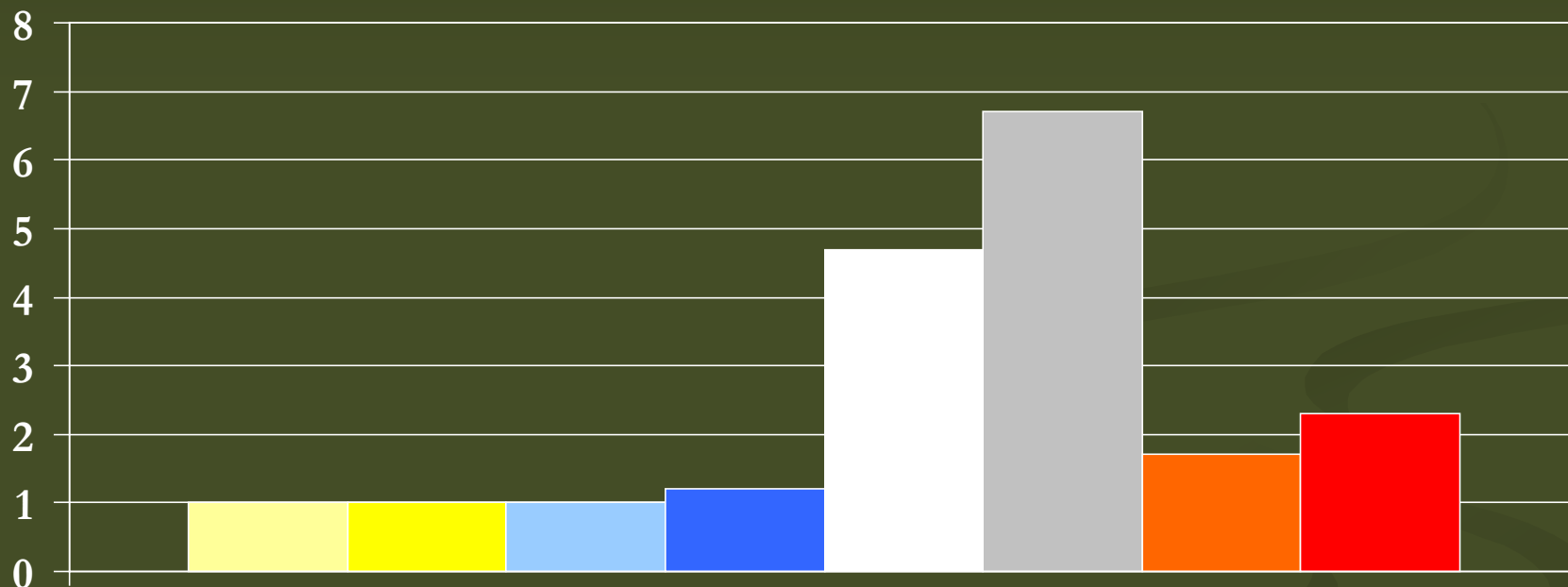
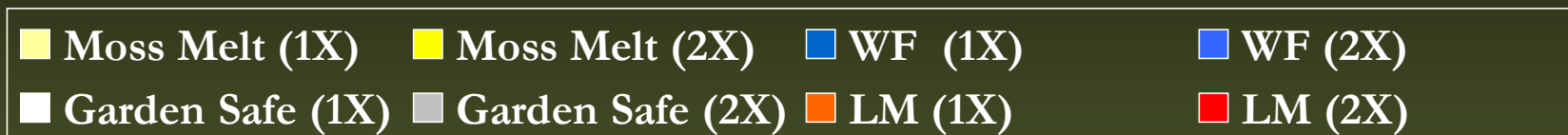
3 Days After Treatment

6 gal/1000 spray solution  
TeeJet 80015 flat fan

*Note: WF Moss & Algae, Garden Safe and Lilly Miller Moss-Out applied at 1X label rate.  
Ratings scale: 0 – 9 (1 = no effect; 9 = complete kill)*

## #2 Turf Phytotoxicity – *P. rye*, *P. annua*, *P. trivialis*, and bentgrass (Backpack)

Oregon State University (OSU) Trials



9 Days After Treatment

6 gal/1000 spray solution  
TeeJet 80015 flat fan

*Note: WF Moss & Algae, Garden Safe and Lilly Miller Moss-Out applied at 1X label rate.  
Ratings scale: 0 – 9 (1 = no effect; 9 = complete kill)*

# University of Massachusetts (UM) Trials

## Moss Control & Turf Phytotoxicity

by Prasanta Bhowmik

### ■ 2 sets of trials were conducted by UM:

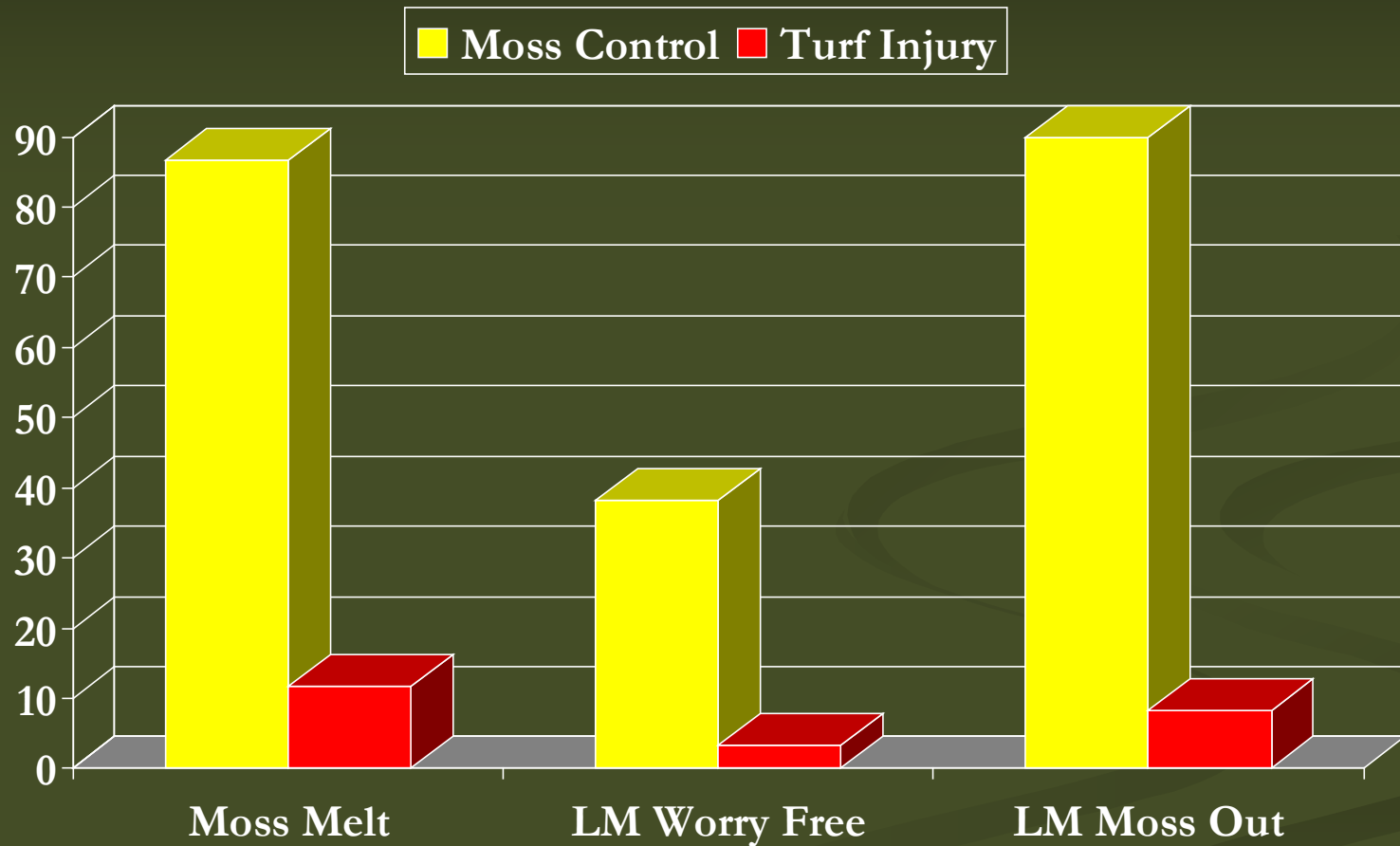
1. **Trial #1:** Comparative trials between Moss Melt applied by **backpack** and **hose-sprayers** (July, 2008) compared to WF Moss & Algae and Lilly Miller Moss-Out. Trials were at two (2) different locations
2. **Trial #2:** Greenhouse trial comparing Moss Melt (Oct, 2008)

### ■ Products & Rates Applied:

1. Moss Melt (**70% d-limonene**) –
  - **10.51 fl oz/1000 ft<sup>2</sup>**
2. Worry Free Moss & Algae (**15% sodium lauryl sulfate & 6% citric Acid**) –
  - **32 fl oz/1000 ft<sup>2</sup>**
3. Lilly Miller Moss-Out ( **9.75% ferric sulfate**) –
  - **64 fl oz/1000 ft<sup>2</sup>**
4. **Spray Solution on backpack trials – 2.3 gal/1000 ft<sup>2</sup>**

# Bentgrass: Backpack Spray – Day 7

University of Massachusetts, Amherst Resident - July, 2008

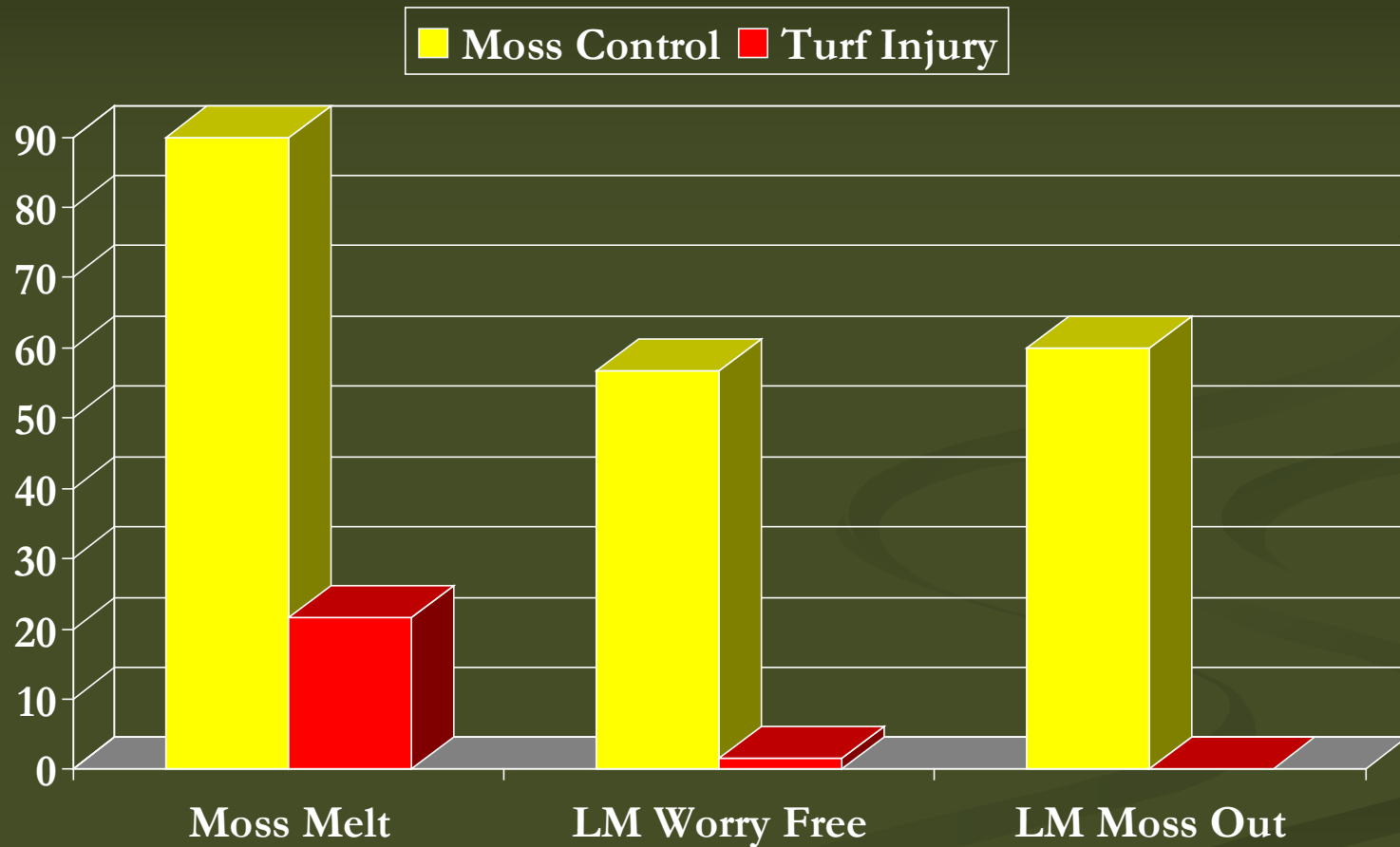


Dr. Prasanta Bhowmik, Dept. of Plant, Soil, and Insect Sciences

2.29 gal/1000 spray solution  
TeeJet 1104 VS

# Bentgrass: Garden Hose End – Day 23

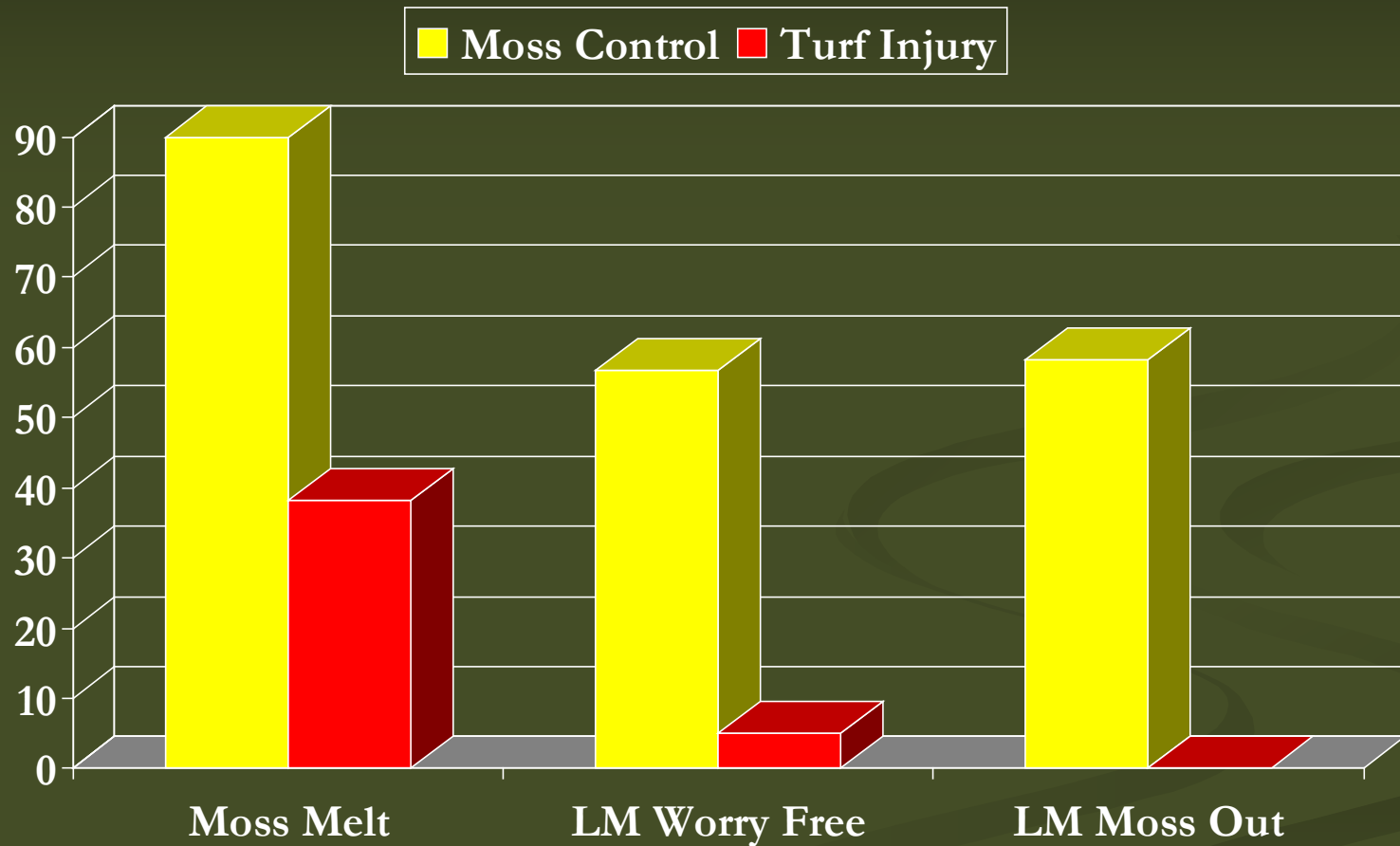
University of Massachusetts, Amherst Resident - July, 2008



Ratings are from 0 to 100: 0 = no effect, 100 = total effect

# Bentgrass: Garden Hose End – Day 7

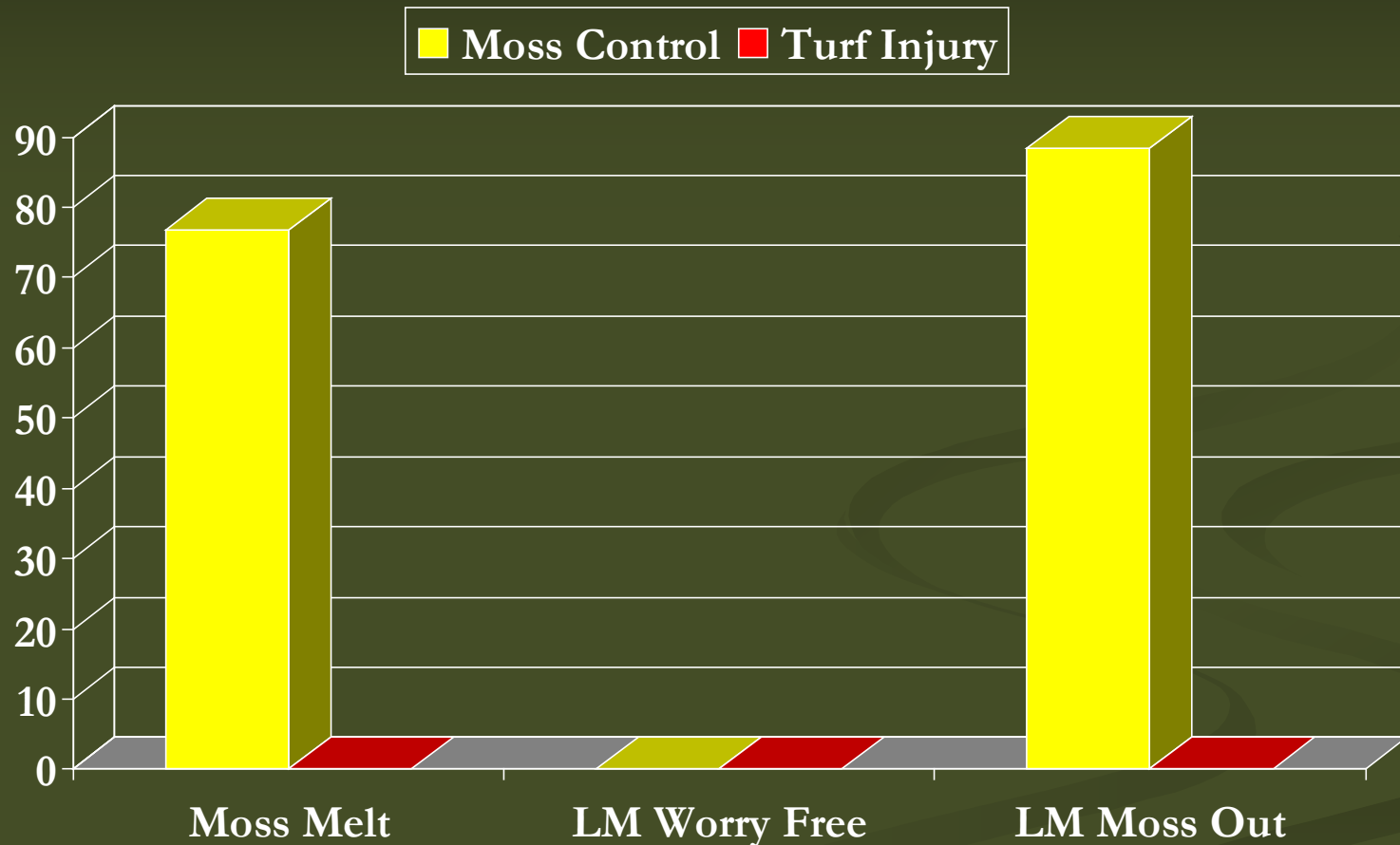
University of Massachusetts, Amherst Resident - July, 2008



Ratings are from 0 to 100: 0 = no effect, 100 = total effect

# Bentgrass: Backpack Spray – Day 23

University of Massachusetts, Amherst Resident - July, 2008



Ratings are from 0 to 100: 0 = no effect, 100 = total effect

2.29 gal/1000 spray solution  
TeeJet 1104 VS



# University of Massachusetts (UM) Trials

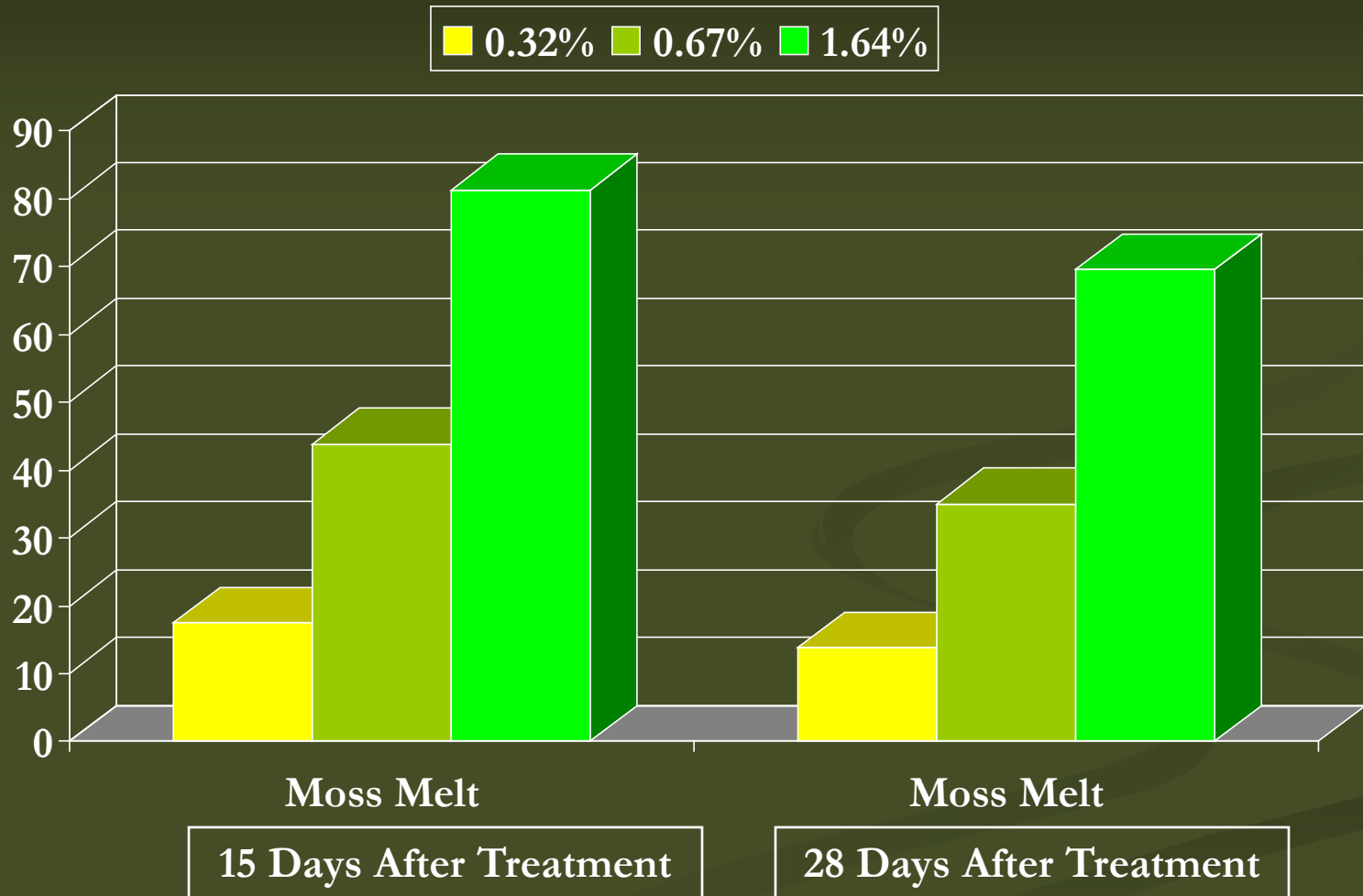
## Trial #2

### Greenhouse Trials - Moss Control

- Greenhouse trials were set up to determine why there were such difference between Moss Melt in the outdoor trials.
- The highest dose tested is equivalent to the 1X label rate
- No real differences were observed in the greenhouse trials

# Moss Control: Greenhouse Trial

University of Massachusetts - October, 2008



Dr. Prasanta Bhowmik, Dept. of Plant, Soil, and Insect Sciences.

*Note: 1.64% represents @ 1X dose rate.*