

Town of Cape Elizabeth  
Ordinance Committee  
05/10/2023

Jesse O'Brien  
O'Brien Landscape Agronomy  
jesseobrien81@gmail.com



# Jesse O'Brien's Background

- ▶ Got a High School Summer Job at Skillin's Greenhouses in Falmouth
- ▶ Decided at some point in time, I'd Rather Work Outdoors Than Indoors
- ▶ Attended at that time was then called SMVTI, Plant and Soil Science
- ▶ Continued on to UMaine in Orono, Graduated B.S. in Plant and Soil Science
  
- ▶ **Employment:** Skillin's Greenhouses - Nursery Manager 8 years, Al Lappin Landscape Co. 2 years, Down East Turf Farm 25 years, and now O'Brien Landscape Agronomy
  
- ▶ **Teaching:** Adjunct Instructor Plant and Soil Science SMCC, Courses Taught, Botany, Entomology - Insect Pests, Nursery Management - for 15 years  
Adjunct Instructor UMaine Orono- Turfgrass Management - for 9 years

# Professional Organizations, Committees and Talks Given to Groups

- ▶ Past-President of the following: Maine Landscape and Nursery Association - New England Nursery Association - New England Grows - New England Sod Producers Association - Ornamental Horticulture Council
- ▶ Participation with the Department of Agriculture, Conservation Forestry, DACF. Member of the Integrated Pest Management Council, IPM. Contributor to the Best Management Practices, BMP's of Turf Management. Contributor to BMP's for Maine Athletic Fields and School Grounds. Contributor to the New England Sports Field Association BMP's
- ▶ Talks given to: Maine Landscape and Nursery Association - Maine Golf Course Superintendent's Association - New Hampshire Landscape Association - UNH Extension - Mass. Landscape Professional - Mass. Arborists - Northeast Organic Farmers Association - Maine Board of Pesticide Control - Maine Flower Show - New England Flower and many others
- ▶ *South Portland Landcare Advisory Management Committee, LMAC,*
- ▶ *Portland LMAC*
- ▶ *Acts as the Agronomist and Chair for both Committees*

# What are My Sources for Balanced Authoritative Information?

- ▶ Many places, I personally favor web sites that end in .gov and .edu, but there are some great sites that end in .com and .org also.
- ▶ New England Land Grant Institutions, Maine Board of Pesticide Control, DACF
- ▶ Manufactures, Colleagues and Personal Experience



Maine  
Integrated  
Pest  
Management  
Council



# Whatever You Want to Call Yourself I'm for You. Its All Hard, Honest Work. It All Starts with IPM

Organically, Sustainable, MOFGA, Audubon, Environmental, Plant Health Care, Resilient, Ecological, NOFA Land Care, Permaculture, It All Starts with IPM (Integrated Pest Management)



Cornell University

## Intergraded Pest Management - IPM is the Policy of the State of Maine to Promote and Practice

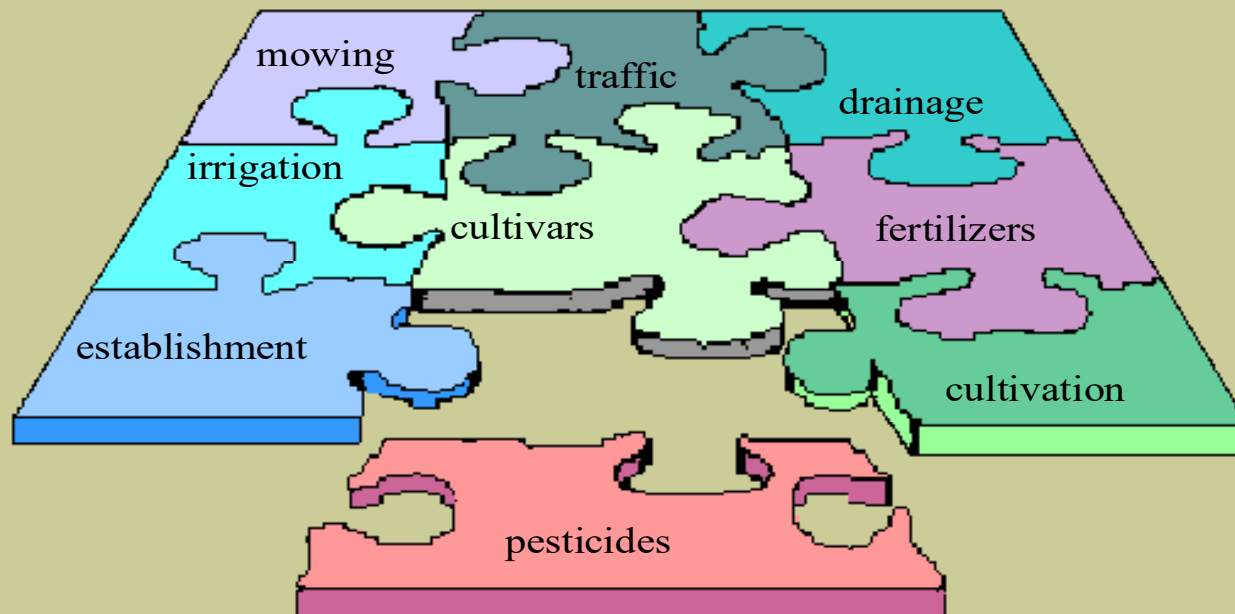


- ▶ Identify the Pest -
- ▶ Understand Biology -
- ▶ Monitoring -
  - Scouting
  - Identification
  - Recording
  - Mapping
- ▶ Suppression/ Tolerance
- ▶ Economic and Aesthetic Thresholds



Maine  
Integrated  
Pest  
Management  
Council

# Turfgrass IPM



# Best Management Practices BMP's

## Turfgrass

- ▶ Check soil conditions, compaction, erosion, frozen ground, saturated soils, bare soil
- ▶ Identify the pest or issue
- ▶ Choose the least toxic product available
- ▶ Check weather forecasts. Do not apply if heavy rain is predicted. Do not apply if gusty winds are predicted
- ▶ Water in turf products if the label states so
- ▶ Apply pesticides to the target avoid drift
- ▶ Do not apply if air temperature exceeds 85 degrees

AND MANY MORE



# Terms, Acronyms and Phases

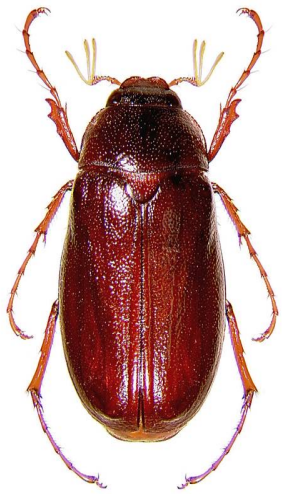
- ▶ Maine Board of Pesticide Control, MPBC, visit the website Especially FAQ Section
- ▶ A Pesticide is a Pesticide for Licensed Commercial Applicators - Testing
- ▶ Organic does Not Necessarily Mean Safe, Synthetic does Not Necessarily Mean Toxic
- ▶ OMRI - Organic Materials Review Institute
- ▶ NOP - National Organic Program; National List of Allowed and Prohibited Substances
- ▶ NPIC - National Pesticide Information Center - Oregon State University
- ▶ Organic / Natural Products
- ▶ Think First Spray Last - Preemptive Applications
- ▶ Cultural Practices

## SP LMAC and Portland LMAC Survey

- ▶ 20/60/20  
20% Approve / 60% Are OK/Concerned but are Looking For Guidance / 20 % Oppose
- ▶ No Real Base Line
- ▶ Hard to Measure Results
- ▶ A Survey was Created
- ▶ SOUTH PORTLAND & PORTLAND PESTICIDE USE ORDINANCE QUESTIONNAIRE RESPONSES FROM CONTRACTORS (34 on 4/12/20)
- ▶ SOUTH PORTLAND PESTICIDE USE ORDINANCE QUESTIONNAIRE RESPONSES FROM RESIDENTS (131 on 4/12/20)



# Adult Beetles By Ohio State



May-June Beetle



Green June Beetle



Masked Chafer



Japanese Beetle



European Chafer



Oriental Beetle

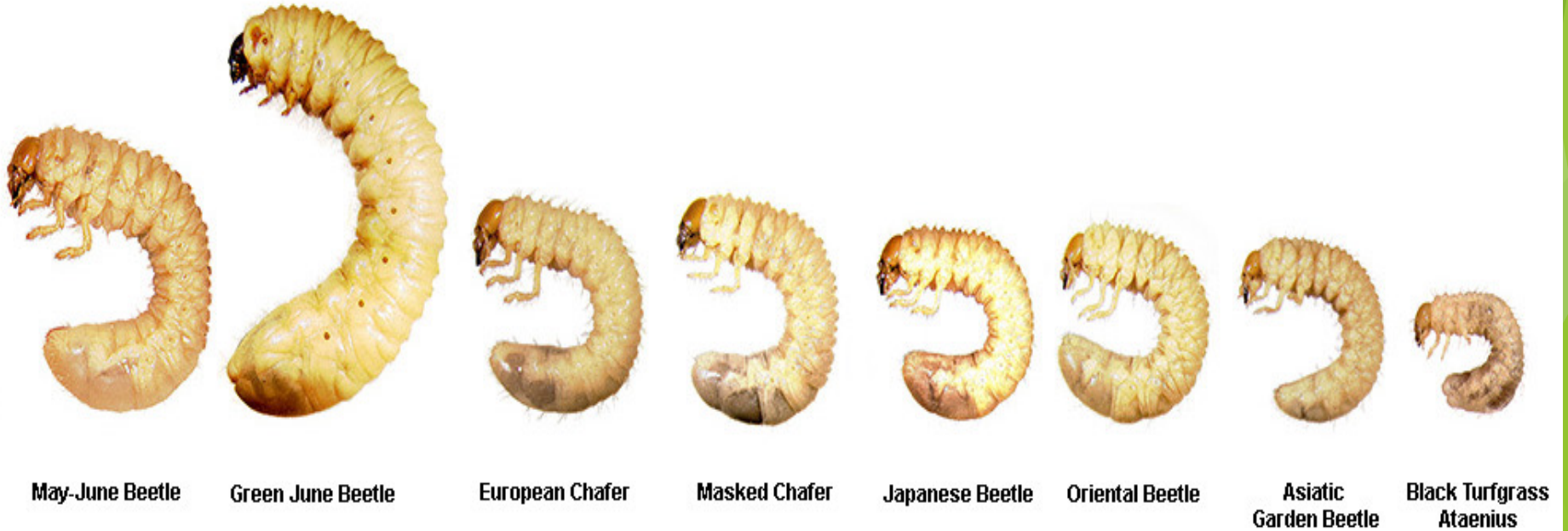


Asiatic  
Garden Beetle



Black  
Turfgrass  
Ataenius    Aphodius

# Larval Stage of Beetles By Ohio State



# Natural Suppression for White Grubs Milky Spore and Winsome Fly



- ▶ UMass Statement is if it works for you use it
- ▶ Studies Show Very Inconsistent Results
- ▶ Others are:
- ▶ Winsome Fly
- ▶ Parasitic Nematode
- ▶ Grub Gone and Beetle Be Gone

## Weeds and the Tolerance of Weeds

Clover - 'Trifolium' and the Dandelion 'Taraxacum officinale'



# Crabgrass Biology and Management

- ▶ Distributed Worldwide
- ▶ Large Crabgrass and Hairy Crabgrass
- ▶ Life Cycle, Summer Annual, one Plant can produce 150-700 tillers and 150,000 seeds. Seeds Germinate when Soil Temps are 55 degrees for four or five consecutive days
- ▶ Seed will germinate when in contact with Soil and Sunlight
- ▶ Crabgrass is a Warm Season Grass. C4 as opposed to C3 Cool Season Grass. Crabgrass will out compete Turfgrass
- ▶ Corn Gluten Meal possible Crabgrass Suppressant