

Check the Numbers

Does it all Add Up?

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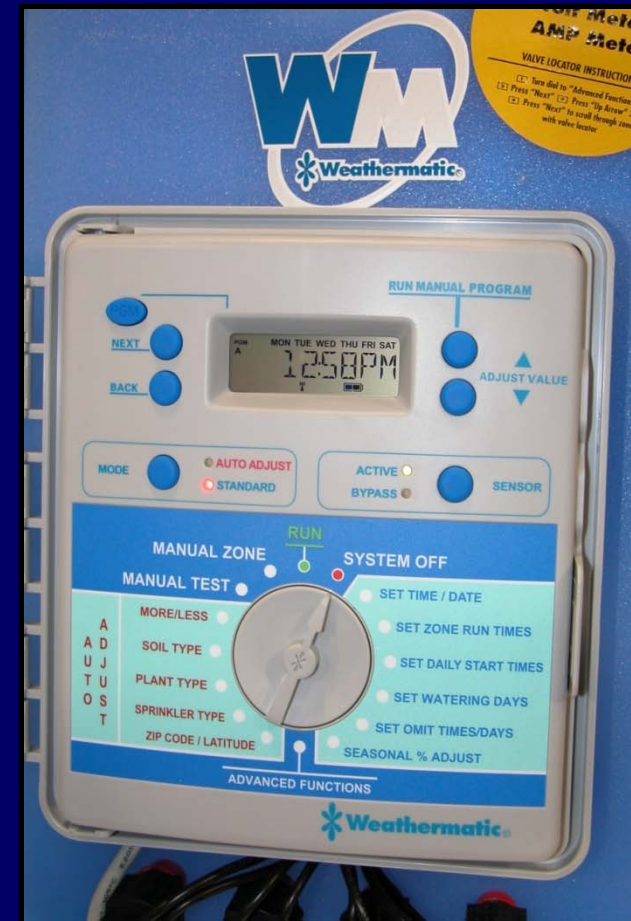
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I'm Confused !!!

- Water Conservation ?
- Water Savings ?
- Percent Saved ?
- Percent Cutback ?
- Well being ?
- Economics ?
- BMPs

Utilizing Smart Controllers

- SICDs adjust runtimes as ETo changes
- SICDs perform all necessary calculations !
- Installation and set up is critical
- Precision can be improved by inputting
 - System Precipitation Rate
 - Distribution Uniformity/Efficiency



***Mulches
can hold
water !***



Mulch Water Holding Capacity

Mulch	In/Ft	In/In
Gromulch	3.64	0.30
Yardwaste	2.52	0.21
Composted Yardwaste	1.59	0.13
Organic Ground Cover	1.25	0.10
Bark	1.11	0.09
Xerimulch	0.81	0.07
Rock	0.09	0.01





***Landscape Species Performance Under
Irrigation Levels Based on
Reference Evapotranspiration (ET_o)***

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Study Location: Quail Botanical Gardens, Encinitas, California

- **1994 - Planted**
- **1995 - Established**

Treatments (Eto times)

- **1996 - 0.36 0.24 0.12**
- **1997 - 0.36 0.18 0.00**
- **1998 - 0.36 0.18 0.00**



Species Studied:

Arbutus unedo 'Compacta'

Arctostaphylos 'Pacific Mist'

Artemisia x 'Powis Castle'

Calliandra haematocephala

Cassia artemisioides

Ceanothus griseus horizontalis

Chamaerops humilis

Cistus purpureus

Correa alba 'Ivory Bells'

Echium fastuosum

Escallonia x *exoniensis* 'Fradesii'

Galvezia speciosa

Grevillea 'Noell'

Heteromeles arbutifolia

Hibiscus rosa-sinensis

Compact Strawberry tree

Bearberry

Wormwood

Pink powder puff

Feathery cassia

Carmel creeper

Mediterranean fan palm

Orchid spot rock rose

White Australian correa

Pride of Madeira

Frades escallonia

Bush snapdragon

Noell grevillea

Toyon

Rose of China

Species Studied:

Lantana montevidensis

Leptospermum scoparium

Leucophyllum frutescens 'Green Cloud'

Ligustrum japonicum 'Texanum'

Myoporum x 'Pacificum'

Otatea acuminata

Phormium tenax

Pittosporum tobira

Prunus caroliniana

Pyracantha koidzumii 'Santa Cruz'

Rhaphiolepis indica

Salvia leucantha

Teucrium chamaedrys

Westringia rosmariniformis

Xylosma congestum

Trailing lantana

New Zealand tea tree

Texas ranger

Texas privet

Myoporum groundcover

Mexican bamboo

New Zealand flax

Mock orange

Carolina cherry laurel

Santa Cruz pyracantha

Indian hawthorn

Mexican bush sage

Germander

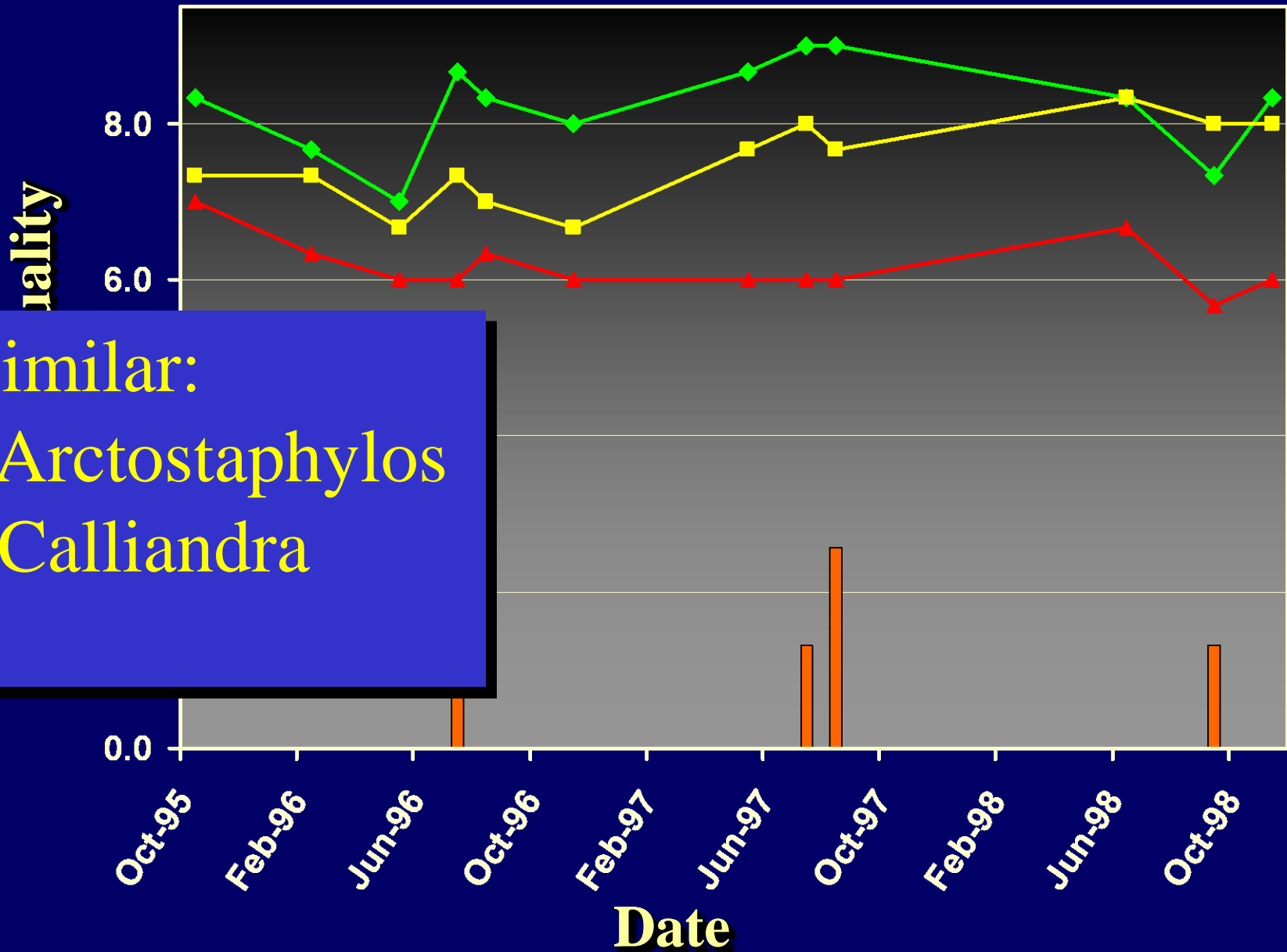
Rosemary bush westringia

Shiny xylosma

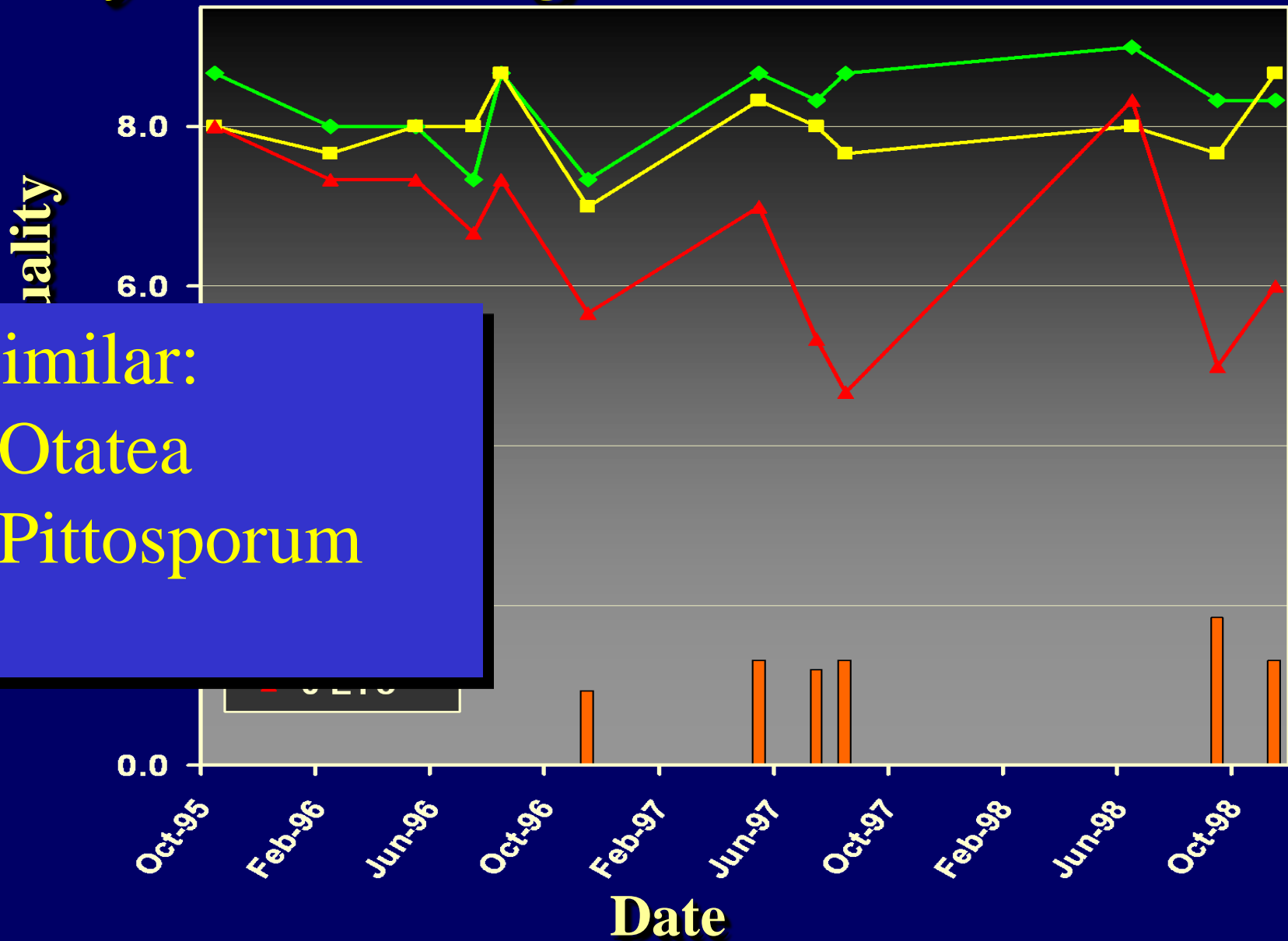




Arbutus unedo - Aesthetic Quality



Xylosma congestum







Phormium tenax

Similar:

Correa

Escallonia

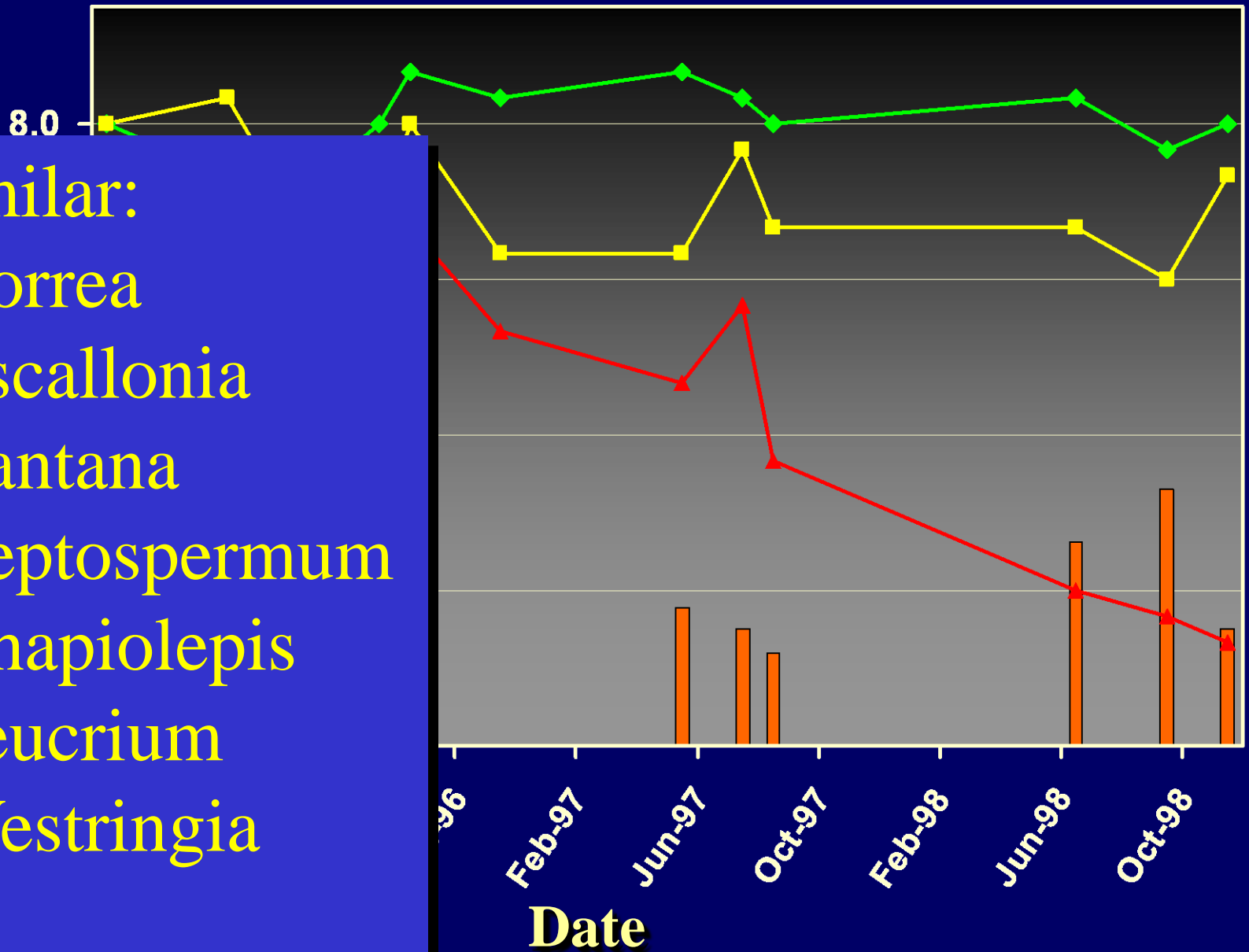
Lantana

Leptospermum

Rhaphiolepis

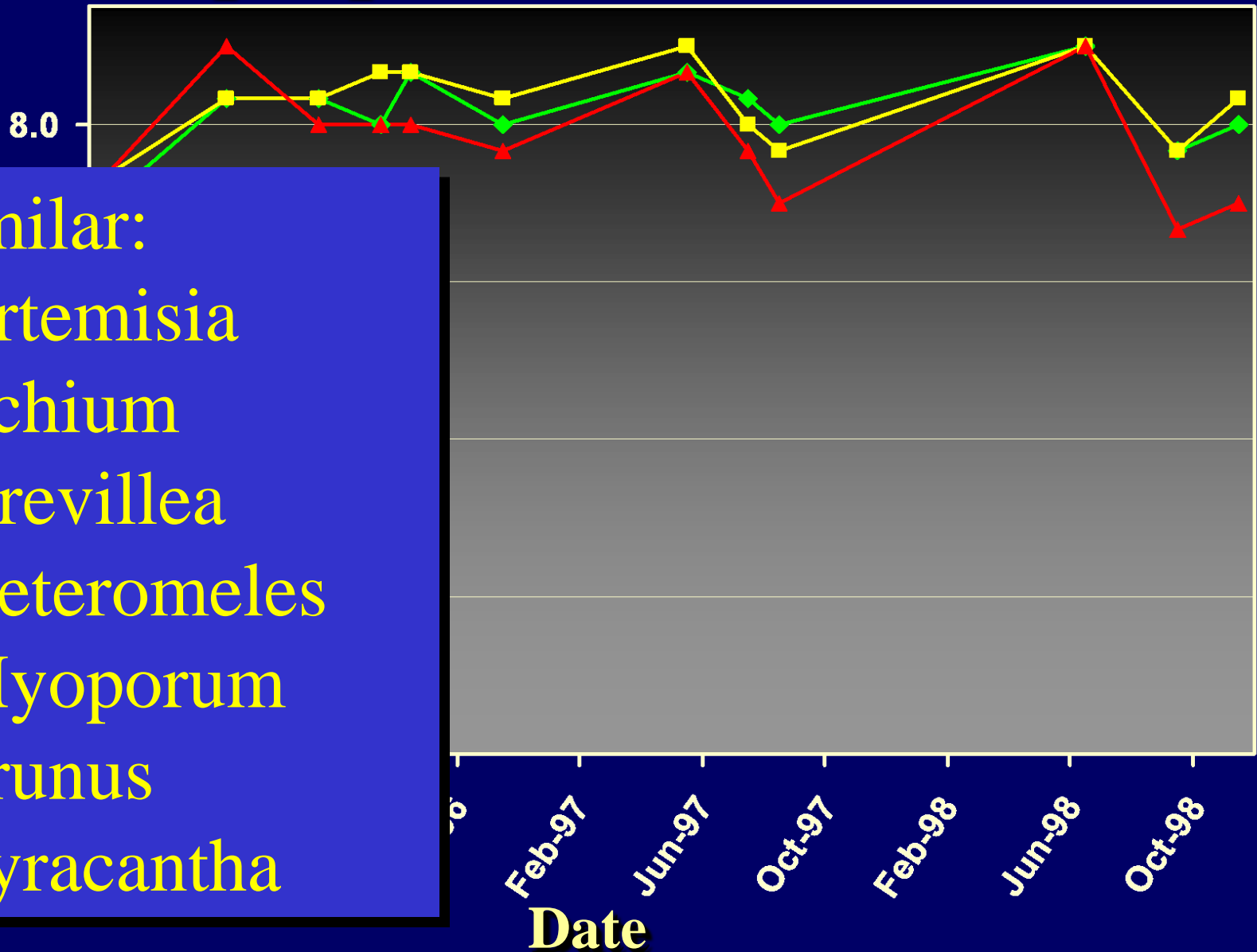
Teucrium

Westringia





Cistus purpurea



Similar:

Artemisia

Echium

Grevillea

Heteromeles

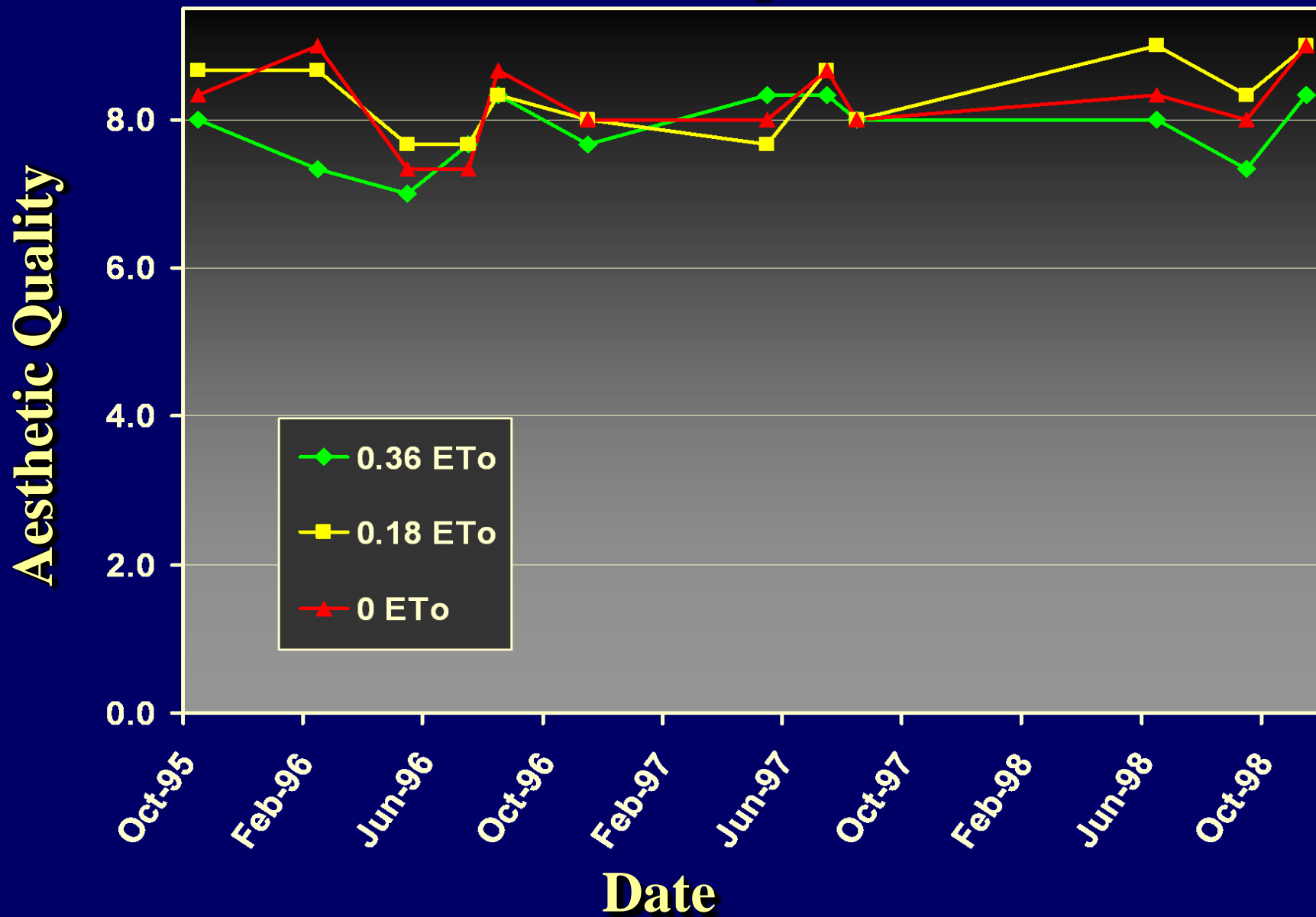
Myoporum

Prunus

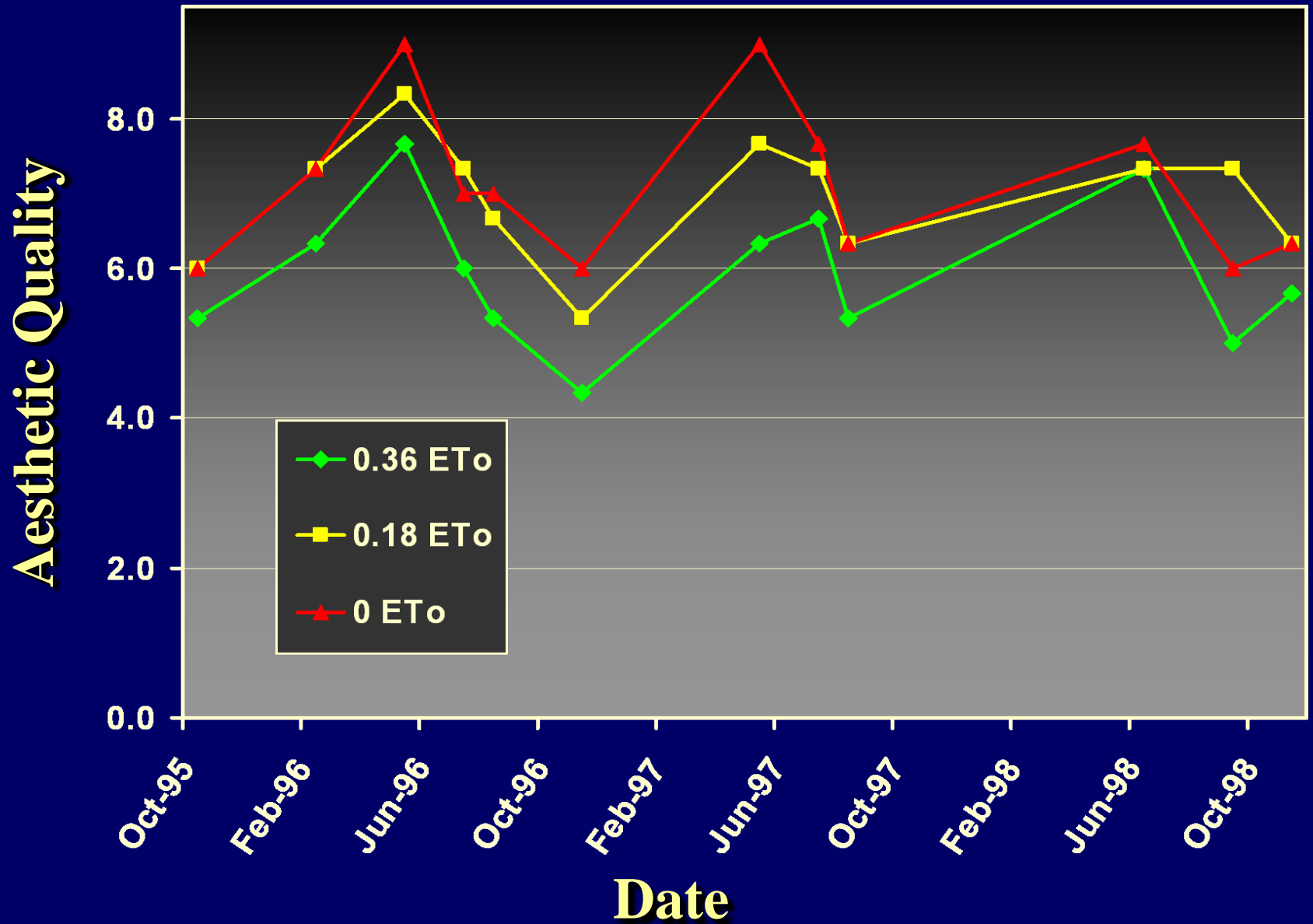
Pyracantha



Heteromeles arbutifolia

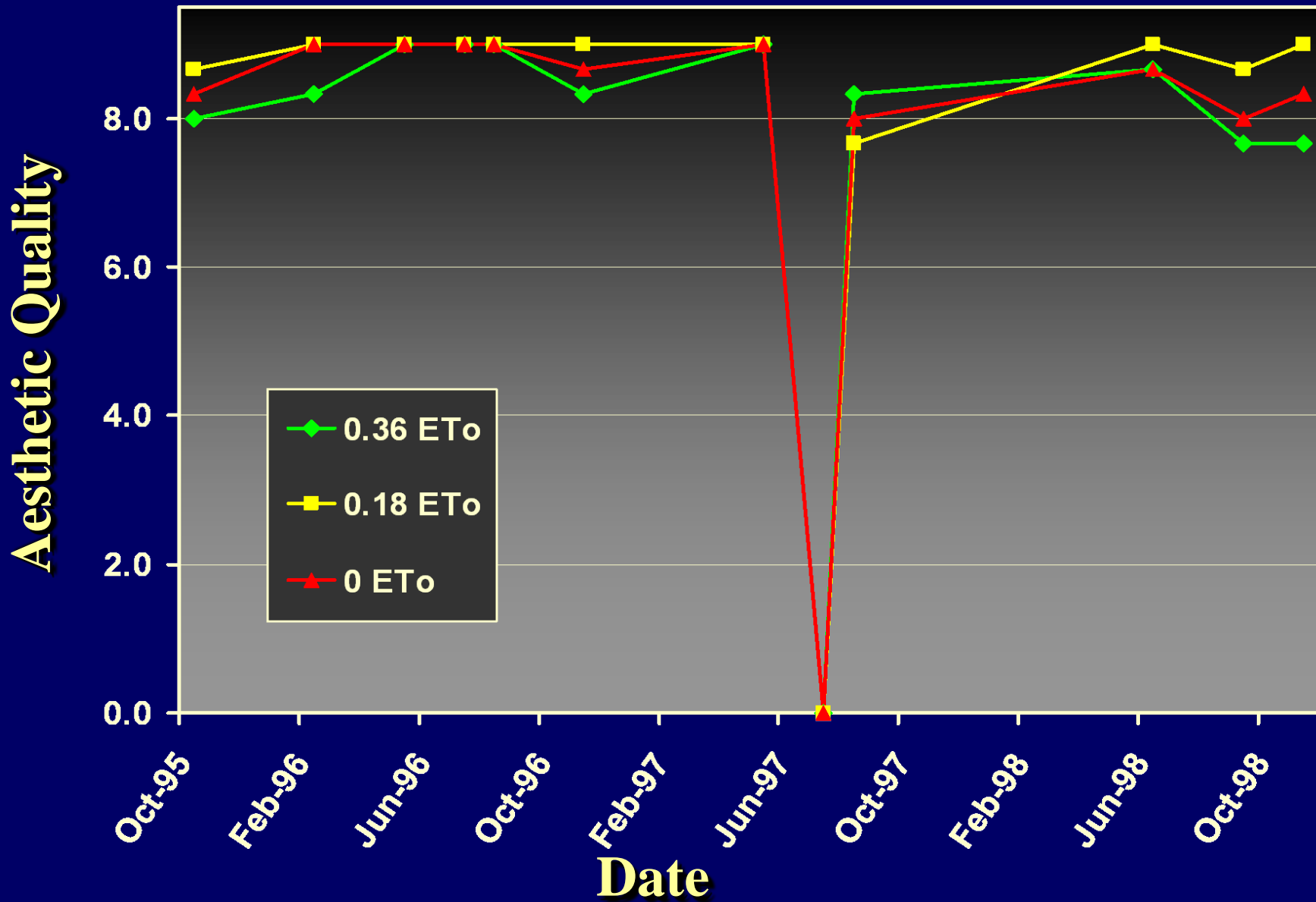


Galvezia speciosa





Myoporum 'Pacificum'



**Klambothrips *damage*
on Myoporum 'Pacificum'**

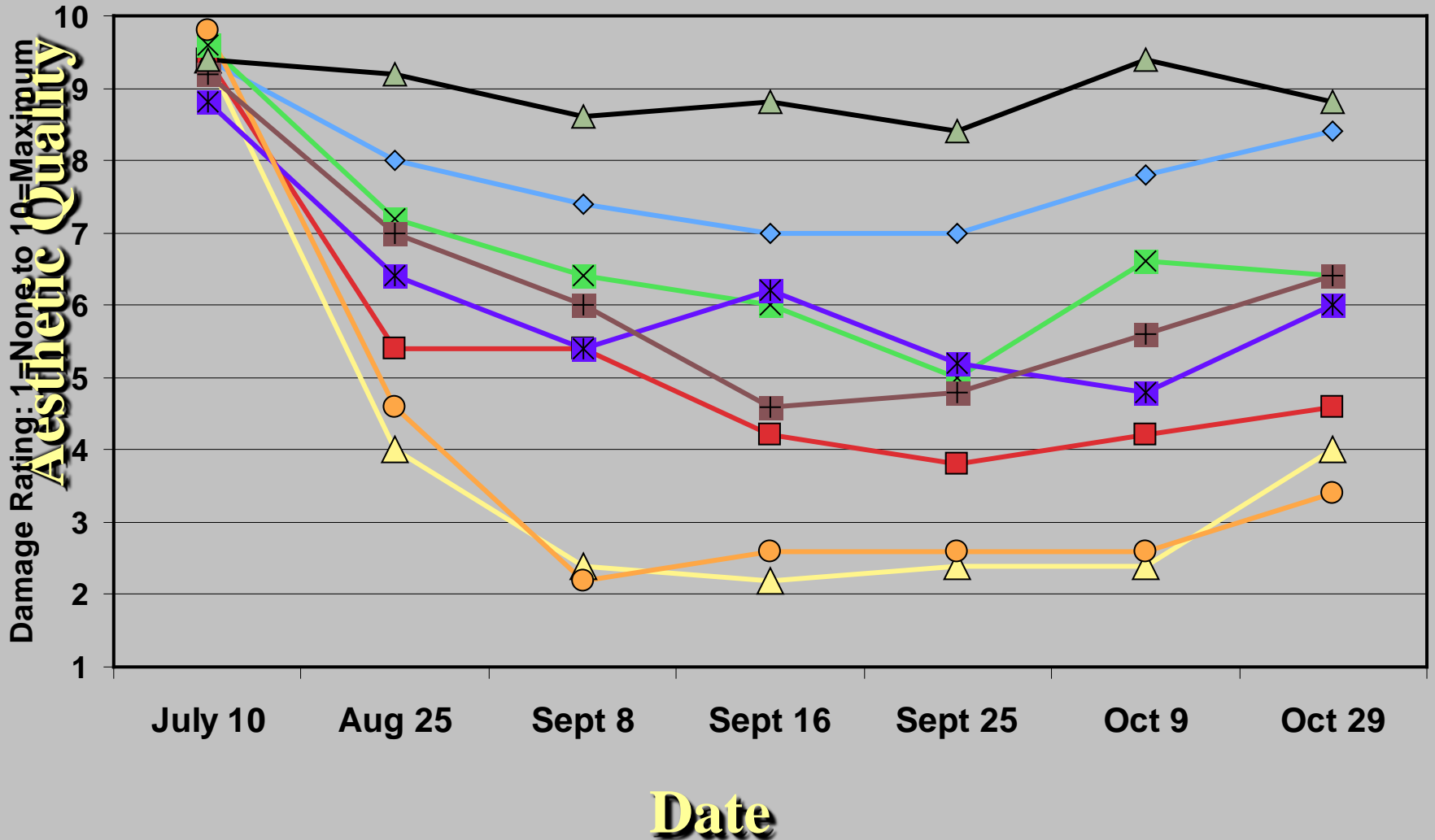






Damage to Myoporum 'Pacificum' caused by Klambothrips myopori.

◆ Merit ■ Arena ▲ Meridian × Tristar × Safari ○ Allectus ■ Orthene ▲ Control



Control

Plot 38 9-16-08



Meridian
08

Plot 37 9-16-



Red Gum Lerp Psyllid
Glycaspis brimblecombei





The life cycle of the parasitoid *Psyllaephagus bliteus* :

(All photos by Jack Kelly Clark)

- 1.) The adult male and female wasps mate, and the females hunt for psyllid nymphs of a suitable size (medium to large).

The adult male parasitoid next to psyllid eggs and lerp





This adult female parasitoid searches for lerps with psyllid immatures of suitable size. The female can be distinguished from the male by different antennae and an ovipositor extending from its abdomen.

3.) After about two weeks, the wasp immatures pupate to adults, and chew a hole in the lerp covering to emerge and continue the cycle.



**Holes in
lerps made
by
emerging
wasps.**





















Seashore paspalum



Suggestions for the Care
of Seashore Paspalum











Sustainable Landscapes

- Will bring facets of the industry together
- Will be a dynamic process
- Landscapes are dynamic and changing as new methodologies, plant materials, pest management, salinity management and other factors are developed.