

Jumping the Fence Line
Escaped agricultural plants in Hawai`i

Hawai`i Department of
Agriculture's
Noxious Weed List

Plant Pest Control Branch
Chemical/Mechanical Control Section

Becky Azama, Noxious Weed Specialist

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University of Hawai`i at Mānoa

Potential Candidates



Hawai`i Department of Agriculture's Noxious Weed List

Noxious Weed Rules Chapter 4-68, Hawaii Administrative Rules

- “Noxious weed” is a legal term
- 79 species are designated “noxious” by Rules
- Designation by HDODA using 5 criteria

Purpose of the Noxious Weed List

Designation of species gives HDOA authority to:

- Engage in eradication or control projects against listed species
- Gain entry onto private property for eradication or control
- Automatically includes designated species with Plant Quarantine's Restricted Plant List

Each species must meet at least one requirement in all 5 criteria

Based on:

1. Reproduction
2. Growth characteristics
3. Detrimental effects
4. Control
5. Distribution and spread

Plant Reproduction

- Seeds capable of being dispersed over wide areas; or
- Seeds capable of remaining dormant for 2 years or more; or
- Tubers, creeping roots, stolons, rhizomes, or other natural vegetative means



Growth

- ❶ Competes with cultivated crops for nutrients, water, or sunlight; or
- ❷ Establishes and forms dense stands in pasture lands, forests, lawns, landscape gardens, and recreational areas and conservation districts and is capable of shading and crowing out forage plants, native plants, and other desirable plants



Detrimental Effects

- Can cause severe production losses or increased control costs to the agricultural, horticultural, aquacultural, or livestock industries; or
- Potential of endangering native flora and fauna by encroachment in forest and conservation areas; or

Detrimental Effects

- Potential of hampering the full utilization and enjoyment of recreational areas including forest and conservation areas; or
- Poisonous, injurious, or otherwise harmful to humans or animals

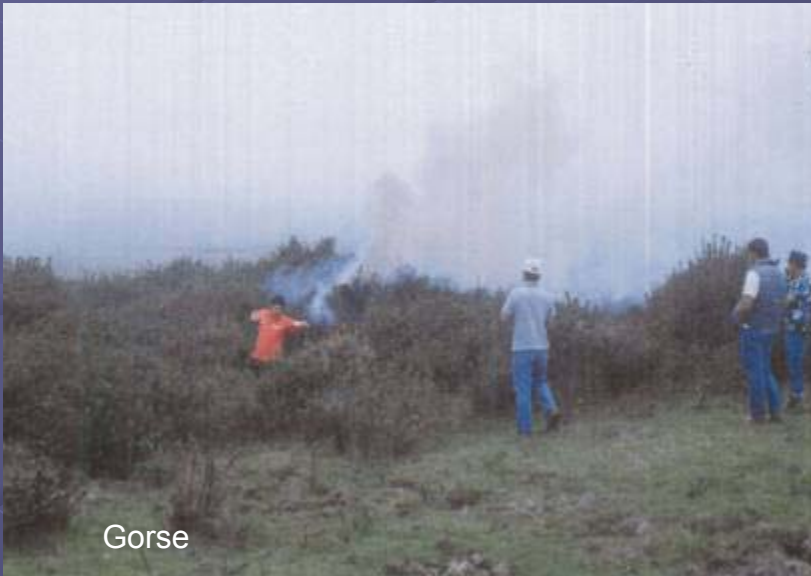


Control

- Not effectively controlled by present day technology or by available herbicides currently registered for use pursuant to Chapter 4-149A, Hawaii Revised Statutes; or
- Is effectively controlled only by extraordinary efforts such as repeated herbicidal applications at high dosage rates; or

Control

- Effectively controlled only by additional effort over and beyond the normal weed maintenance effort required for the production or management of certain crops, and pasture lands, recreational areas, forest lands, or conservation areas



Distribution and Spread

- Not known to occur in one or more islands of the State; or
- Known to occur only in incipient stages on less than five acres on one or more islands of the State; or
- Known to occur on more than five acres but only in isolated or limited areas on one or more islands of the State



Steps to add a species to the Noxious Weed List

Screen species for suitability under the 5 criteria



Review of proposed list by plant/weed experts



Proposed species goes before the Board of Agriculture



Small Business review



Public Hearings



Return to Board of Agriculture



Rules finalized (if passed by the Board)

Noxious Weed Control Law

Chapter 152, Hawaii Revised Statutes

● Prohibits introducing or transporting specific noxious weeds or their seeds or vegetative reproductive parts

Into areas designated free or reasonably free of those noxious weeds

● Does not prohibit the sale of noxious weeds

For additional information on the Noxious Weed Law and Rules

- Call HDOA, Chemical/Mechanical Control Section: 973-9538
- Website: www.hawaiiag.org/hdoa
 - Noxious Weed list
- Email: hdoa_info@hawaii.gov

Recommended Practices

- Research species and discuss with others who have concern for the environment
- Use tools:
 - Weed Risk Assessment
 - A Global Compendium of Weeds
- Encourage clients to use native plants



Recommended Practices

- Avoid using plants that are known to be weedy despite the attractiveness or usefulness
- Do not plant species that are designated Noxious Weeds



Looks pretty, but...



Downy rosemyrtle in haku lei

Noxious weeds are just plain noxious



Gorse



Hill raspberry



Ivy gourd



Shoe button ardisia



Fountaingrass



Banana poka

HDOA's Biological Control Program



HDOA's Biological Control Program

- Currently 10 bio-control projects in quarantine
- Potential bio-control agents are rigorously screened for host specificity prior to release



When weeds are out of control...

For long term effects,
bring in the good guys...
biological control agents



Cactoblastis cactorum

More examples of bio-control at work



Ivy gourd before



Melittia larva in stem



Ivy gourd after



Hamakua pamakani before



Entyloma ageratinae fungus



Hamakua pamakani after

For More Information on HDOA's Bio-Control Program:

- Neil Reimer, Plant Pest Control Branch Manager (808) 973-9522
- Ken Teramoto, Bio-Control Section Chief (808) 973-9524
- Email: hdoa_info@hawaii.gov

Acknowledgments

● Photo credits:

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- Forest & Kim Starr, USGS
- Mississippi State University
- University of South Florida

● References and information:

- WRA: Weed Risk Assessment for Hawaii & Pacific Islands
 - Dr. Curt Daehler, UH and Dr. Julie Denslow, USDA-FS
- A Global Compendium of Weeds – R.P. Randal, DOA Western Australia
- Neil Reimer, HDOA Plant Pest Control Branch Manager
- Ken Teramoto, HDOA Bio-Control Section Chief