

Alternatives to invasive landscape and garden plants

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The big picture on invasive landscaping and garden plants

- ✱ Invasive plants are for sale
- ✱ Little or no regulation exists to address the problem
- ✱ Horticulture industry opposes regulation
- ✱ Consumer and industry awareness is still low

On sale now at a nursery near you

- ✱ Cortaderia selloana
- ✱ Cotoneaster laetum
- ✱ Hedera helix
- ✱ Genista monspessulana
- ✱ Leucanthemum vulgare
- ✱ Vinca major
- ✱ Centaurea cyanus



60% of “worst weeds” for sale in Andersen’s Horticultural Library (1999)

Herbs	177	87	49%
Grasses	74	46	62%
Aquatic	14	2	14%
Vines	38	23	60%
Shrubs	70	51	73%
Trees	71	60	85%
Total	452	271	60%

Many invasive plants have a horticultural origin

- ✿ 235 introduced woody plants naturalized in U.S.
- ✿ 85% (201) introduced for landscaping purposes
- ✿ 53% of CalEPPC's most invasive pest plants
- ✿ 69% of FL-EPPC's list
- ✿ 65% of naturalized plants in Australia

First introduction of some big baddies

- ✱ Gorse 1823 PA
- ✱ Salt cedar 1823 NY
- ✱ Purple loosestrife 1829 NY
- ✱ Scotch broom 1844 NY
- ✱ Tree of heaven 1874 CA
- ✱ Pampasgrass 1872 CA

Why did we plant THAT?

- ☀ Landscaping
- ☀ Erosion control
- ☀ Windbreak/screen
- ☀ Fire resistant
- ☀ Wildlife attractant



Why are some ornamental plants so invasive?



Ornamental characters Weedy characters

- ✱ easy to propagate
- ✱ establish rapidly
- ✱ grow fast
- ✱ mature early
- ✱ abundant flowers
- ✱ environmentally fit and free from major pests

- ✱ broad germination
- ✱ establish rapidly
- ✱ grow fast
- ✱ mature early
- ✱ prolific seeder
- ✱ environmentally fit
- ✱ *successful dispersal
- ✱ *strong veg growth

Breeding practices that may facilitate weediness

- ✱ sale of seeds
- ✱ repeated introductions
- ✱ hybridization
- ✱ local propagation
- ✱ selection for weedy characters

The horticulture industry up close

- ✱ Environmental horticulture and floriculture is the fastest growing sector of U.S. agriculture
- ✱ 2001 grower cash receipts of \$13.3 billion
- ✱ 1998 retail sales of \$38.8 billion for EH crops and products

California's horticulture industry

- ✿ 20% of U.S nursery crop production (FL 11%, NC and TX 8%)
- ✿ Cash receipts of \$2.4 billion
- ✿ Each year CDFA licenses 3,500 grower nurseries, 3,000 retail nurseries, and 3,500 “incidental dealers”

Horticulture industry perspectives

- ✱ Lack of consensus on definition of invasive
- ✱ Economics are a “trade secret”
- ✱ Oppose bans on particular taxa
- ✱ Oppose restricting importation
- ✱ Favor self regulation and voluntary, regional guidelines for control

Federal nursery regulations

- ✱ Only designated “noxious “ weeds are regulated
- ✱ Plant Protection Act 2000 supercedes FNWA 1974 96 taxa listed
- ✱ Only 1 plant from CalEPPC’s list is regulated (Ageratina adenophora)
- ✱ Enforcement through USDA APHIS
- ✱ Estimated 750 species unlisted

State nursery regulations

- ✿ CA Dept. of Food and Agriculture (CDFA) noxious weed list 128 taxa (+11 in review)
- ✿ Plants are rated A,B,C,Q based on distribution and feasibility for eradication
- ✿ 15 of 78 CalEPPC taxa appear on list
- ✿ Any person can petition to list a plant

County Agricultural Commissioners inspect nurseries

- ✿ All nurseries must be free of A and B-rated pests
- ✿ Eradication of B-rated pests in non-nursery occurrences at discretion of local Commissioner
- ✿ C-rated plants are not subject to state action, may be tolerated in nurseries

Education not regulation:
non-invasive landscaping
alternatives

How do people choose plants?

- ✦ Flowering
- ✦ Foliage
- ✦ Growth habit
- ✦ Care instructions
- ✦ Plant benefits
- ✦ What's on sale!
- ✦ Companion plants
- ✦ Design ideas



Why did we plant That?

Tips from *Monrovia.com*

Cortaderia selloana

- ✪ Border plant
- ✪ Clump forming
- ✪ Summer flowering
- ✪ Flowers for cutting
- ✪ Drought tolerant
- ✪ Easy care
- ✪ Showy flowers
- ✪ Windbreak

Spartium junceum

- ✪ Border plant
- ✪ Clump forming
- ✪ Fall/summer flowering
- ✪ Fragrant
- ✪ Fruit bearing
- ✪ Showy flowers
- ✪ Tolerates poor soil
- ✪ Disease resistant

Developing a target list of invaders

- ✦ Availability in nurseries
- ✦ Regions or habitats invaded
- ✦ Realized or potential impacts in natural areas
- ✦ Plant uses
- ✦ Horticultural requirements



Criteria for matching alternatives

- ✦ Cultivation requirements-sun,water,soil

- ✦ Hardiness – CA has 24 zones

- ✦ Plant attributes

 - Color

 - Growth habit –size

 - Flowering time

A good alternative

Purple loosestrife No!



Cardinal flower Yes



What's so great about non-invasive alternatives?

- ✦ Promotes a positive solution
- ✦ Educate growers, retailers, gardening public about responsible plant use
- ✦ Influence nursery supply and consumer demand
- ✦ Can have a regional emphasis

Get involved!

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