



The Five Stages of Grief: Invasive Plants and the Horticulture Industry

Sarah Reichard

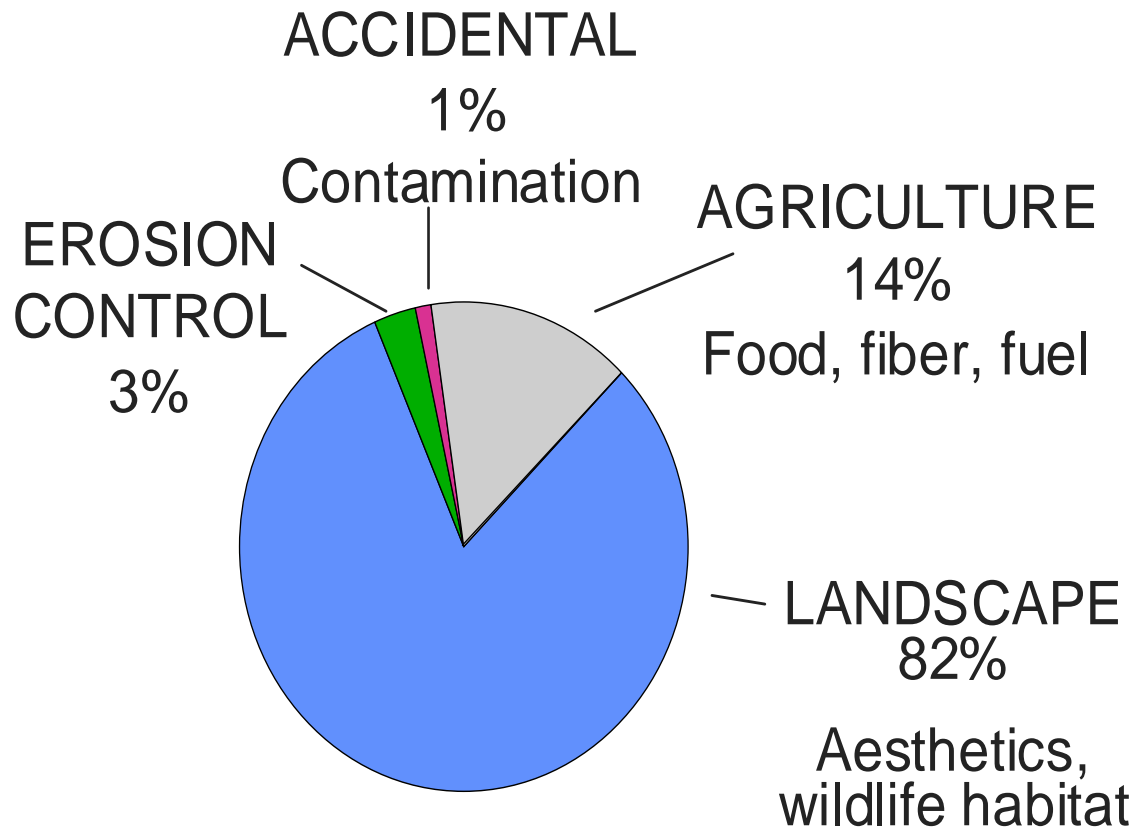
University of Washington

reichard@u.washington.edu



Reasons for the Introduction of Invasive Woody Plants in North America

n=235





Since 1922, SPU has ended each school year with an ivy ceremony. Seniors circle a rope of ivy while president Philip Eaton and other university leaders snip a sprig for each student to take home and plant as a reminder of the school.



J. Randall



“The greatest service which can be
rendered any country is
to add a useful plant
to its culture”

...Secretary of State, Thomas Jefferson 1790

US should facilitate the entry of “plants of whatever nature whether useful as food for man or the domestic animals, or for purposes connected with the manufactures or any of the useful arts”

...President John Quincy Adams 1827

Five Stages of Grief

E. Kübler-Ross (1969)

- Denial

“You don’t know what you are talking about
– I can hardly get the plant to grow in my
garden. And it never seeds there”

“Biodiversity is higher in invaded areas”

Five Stages of Grief

- Denial
- Anger

“You are all a bunch of xenophobic Nazis.
You only want us to grow native plants.”

Ecologists vs. Horticulturists



Five Stages of Grief

- Denial
- Anger
- Bargaining

“I can just cut the seed heads off before they disperse”

“Alright, pampas grass/butterfly bush/ivy is invasive, but these new cultivars won't invade”

Five Stages of Grief

- Denial
- Anger
- Bargaining
- Depression
- Resignation/
Acceptance



Codes of Conduct

The St. Louis Declaration

Nov. 2001

- Nursery professionals
- Botanical gardens and arboreta
- Gardening public
- Landscape architects
- Government – state and federal



<http://www.centerforplantconservation.org/invasives/>

Findings

- People are the major dispersers of plants and the current magnitude of dispersal is unprecedented
- Plant introduction and improvement brings diversity to food, landscapes, and medicine
- A small proportion of introduced species become invasive and have unwanted impacts
- Species invasions can be regional in nature, but the impacts may be far removed from the site of introduction

Guiding Principles

- Plant introduction should be done in a way that minimizes harm
- Efforts must be national in scope, but with a regional perspective
- Prevention and early detection are important
- Professional training and education are essential
- Solutions must include broad-based teams
- All tools, esp. codes of conduct are important

Codes of Conduct Nurseries

1. Ensure that invasive potential of new introductions is assessed
2. Identify suitable alternatives to invasives
3. Develop and promote alternatives
4. Phase out existing stock of agreed-upon invasive species
5. Follow all laws across political boundaries
6. Encourage customers to use and garden writers to promote non-invasive plants

California Horticultural Invasives Prevention

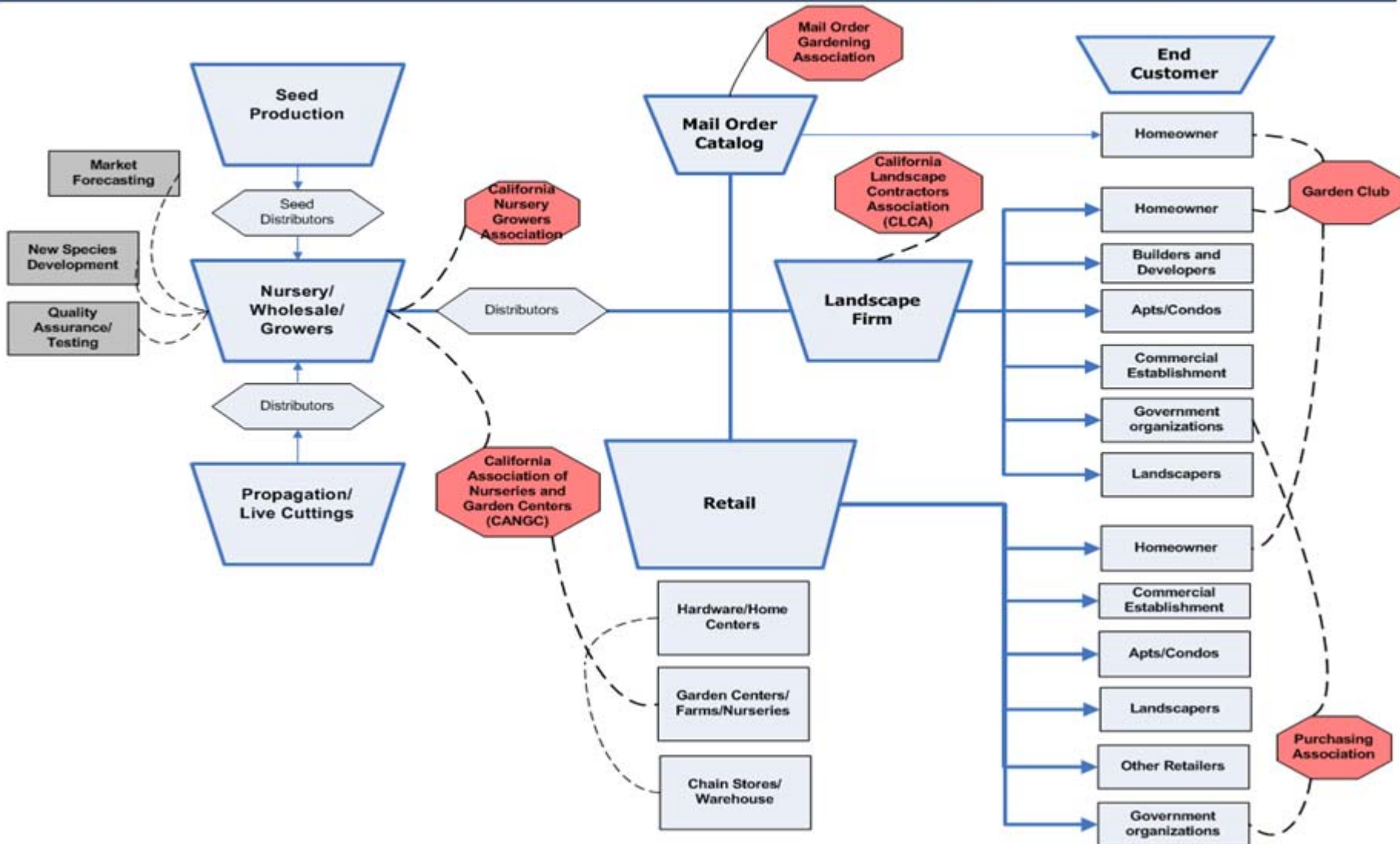


California Horticulture Value Chain

Information

Industry Association

Value Chain Node



Learn about Invasive and Alternative Plants in your Region

Click on the color corresponding to your region of California:



[Home](#) | [Contact](#) | [Site Map](#)

Horticultural Invasives Prevention (C



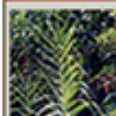
[PlantRight](#) > [Invasive Plants and Alternatives](#) > **Invasive Plants in Your Area**

INVASIVE PLANTS OF THE SIERRA & COASTAL MOUNTAINS

Sunset Zones 1-3

The following plants are invasive in your region of California. We encourage you to not buy, sell, plant, or promote the following species. Click on the plant name for more details, including links to photos of that plant and their invasion of natural areas. Use the "recommended alternatives" link to learn about the beautiful, non-invasive plants that we suggest for your gardening and landscaping needs that will not endanger California's wildlands.

THESE PLANTS ARE INVASIVE IN YOUR AREA



Arundo, giant reed
Arundo donax

[Recommended alternatives](#)



Brooms: Scotch broom, striated broom, French broom, bridal veil broom, Spanish broom

Cytisus scoparius, Cytisus striatus, Genista monspessulana, Retama monosperma, Spartium junceum

[Recommended alternatives](#)



green fountain grass
Pennisetum setaceum

[Recommended alternatives](#)



periwinkle
Vinca major

[Recommended alternatives](#)



saltcedar
Tamarix ramosissima

[Recommended alternatives](#)

***Forsythia x intermedia*** Plant Care Key**Common name: Forsythia**

Sun needs: Water needs:

This plant grows well in the following regions:

- North and Central Coast
- Desert
- Central Valley
- Sierra and Coastal Mountains

Forsythia is a beautiful, deciduous, fountain-shaped shrub with bright yellow blooms in winter and early spring. There may be some autumn yellowing of the green foliage but the principal appeal of the plant is the profuse seasonal blooms of yellow flowers develop all along the branches. Most varieties are less than ten feet tall and wide. Plants can be pruned and trained for a variety of applications, including garden borders or screens. Forsythia will tolerate most soil conditions. The range of Forsythia is for the most part limited by temperature - it grows best in areas without extreme winters or climates with little seasonal difference. (SWGB, 2001)

***Potentilla fruticosa*****Common name: Shrubby Cinquefoil**

Sun needs: Water needs:

PlantRight Logistics

Summer 2003

Grad student intern

Summer 2004

Grad student intern

June 2005

Hired full-time manager

Annual budget, 2006-07

\$160,000 – includes manager, intern, web page, brochures, meetings, and other materials

Current phase of work scheduled to finish end of 2009

Cal-HIP Steering Committee

Industry

(growers like Monrovia, sellers like Lowe's, trade groups like CANGC, CA Farm Bureau)

Environmental Groups

(The Nature Conservancy, California Invasive Plant Council)

Academic and Scientific Community

(University of Washington, University of California Cooperative Extension, University of California – Davis)

Government Agencies

(CA Department of Food and Agriculture, CACASA)

PlantRight Logistics

Summer 2003

Grad student intern

Summer 2004

Grad student intern

June 2005

Hired full-time manager

Annual budget, 2006-07

\$160,000 – includes manager, intern, web page, brochures, meetings, and other materials

Current phase of work scheduled to finish end of 2009

Washington Horticultural Invasives Prevention (WA-HIP)

- Washington State Nursery and Landscape Assc.



- University of Washington

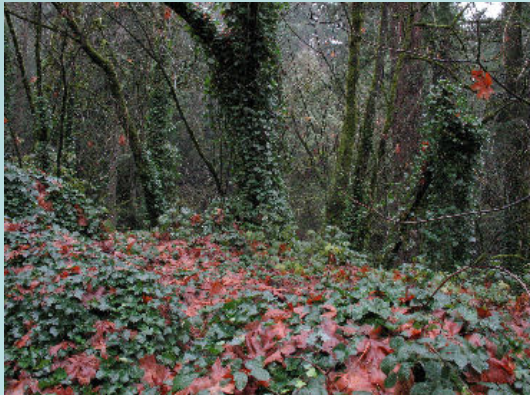


- The Nature Conservancy



WA-HIP Process

- Started in 2004 with a 9 month project
 - Assess 10 currently invasive species
 - Chose 5 and ask key nurseries not to sell, promote safe alternatives
 - Assess economic and social impacts
 - initial budget of \$30,000



Results - Economic

Buddleja davidii

'04 Sales	'05 Sales*	'04 Alternatives	'05 Alternatives
245	68	1108	1252

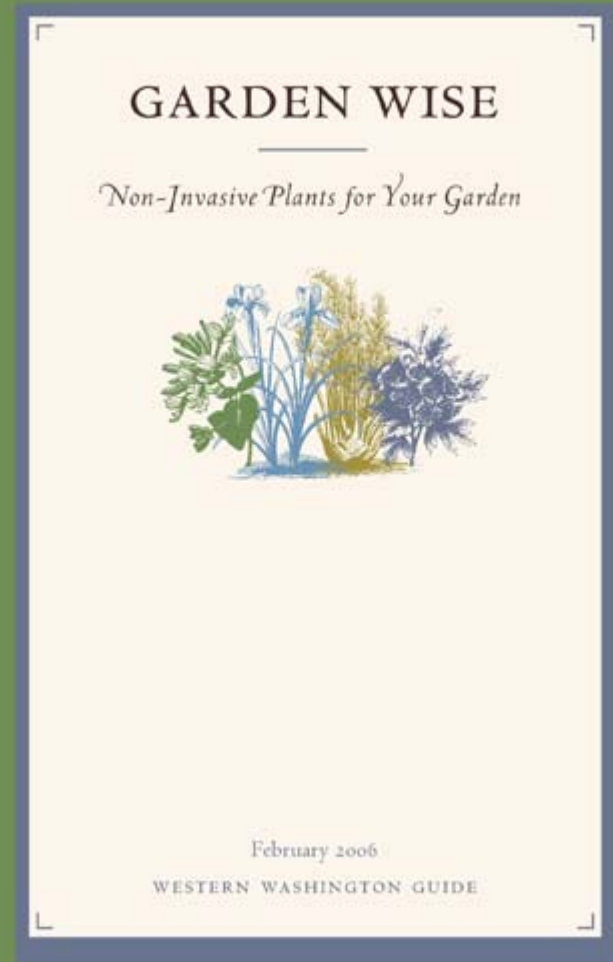


*2005 sales figures are adjusted based on overall nursery sales

Results – Social

- 82% of people requesting 1 of the species appreciated hearing about alternatives
- 62% purchased the alternative
- 23% purchased the invasive
- 7% didn't buy anything

- Feb. 2006, 32 page booklet of invasives
- Now in 3rd printing – more than 40,000
- Distributed to numerous nurseries and to thousands of gardeners
- Now being duplicated for other regions
- WA-HIP continues to meet annually



Overcoming “Lost Species Grief”

- Provide good science to justify your requests
 - 27 page document for WA-HIP species review
 - vetted by a sub-committee of WA-HIP for approval before use

Overcoming “Lost Species Grief”

- Give enough time to accept that they may not be able to grow/sell all species



Overcoming “Lost Species Grief”

- Create opportunities to get to know each other



Photos by Angel Guerzon

Benefits of Voluntary Approaches

- Positive educational tool
- Creates a sense of empowerment and ownership
- Opens dialogue between horticulturists and ecologists, creates trust
- May reduce sales of invasive species

Working with Industry

- Take the time to understand the values and concerns
- Provide the tools to help them accomplish your objective
- Look for sympathetic ears BUT include others
- Develop good answers for common arguments

Be Patient!

