

# Invasive Plants For Sale!

## A survey of nursery professionals



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\* Burt J.W. *et al.* 2007. Preventing horticultural introductions of invasive plants: potential efficacy of voluntary initiatives. *Biological Invasions* (online first).

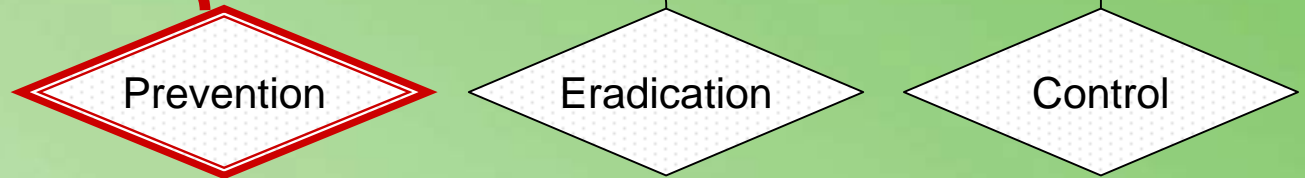
# Background and Rationale

Preventing the intentional introduction of invasive plants

**Invasion process:**

Arrive → Survive → Spread

**Strategy:**



**Relative cost:**

Low

Medium

Very high

**Scientific and public attention:**

Low

High

High





# The horticulture trade and invasive plants

- 82% of 235 naturalized woody plant species in US have been used in horticulture and landscaping (Reichard and White 2001)
- Many invasive plants in California wildlands were introduced for horticulture
- 18 of 25 Bay Area wholesale nurseries carried at least one invasive plant (Cal-IPC 2004)

# Some horticultural introductions in California

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*Genista monspessulana*  
French broom

J.W. Burt



*Cortaderia selloana*  
pampas grass

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*Carpobrotus chilensis*  
Chilean iceplant

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*Pennisetum setaceum*  
fountain grass

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*Arundo donax*  
giant reed

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*Sesbania punicea*  
scarlet wisteria

# Strategies for prevention of horticultural introductions

- Government regulations
- Education
  - Nursery Professionals
  - Consumers/Gardening Public
- Voluntary self-regulation



# St. Louis Declaration and Voluntary Codes of Conduct

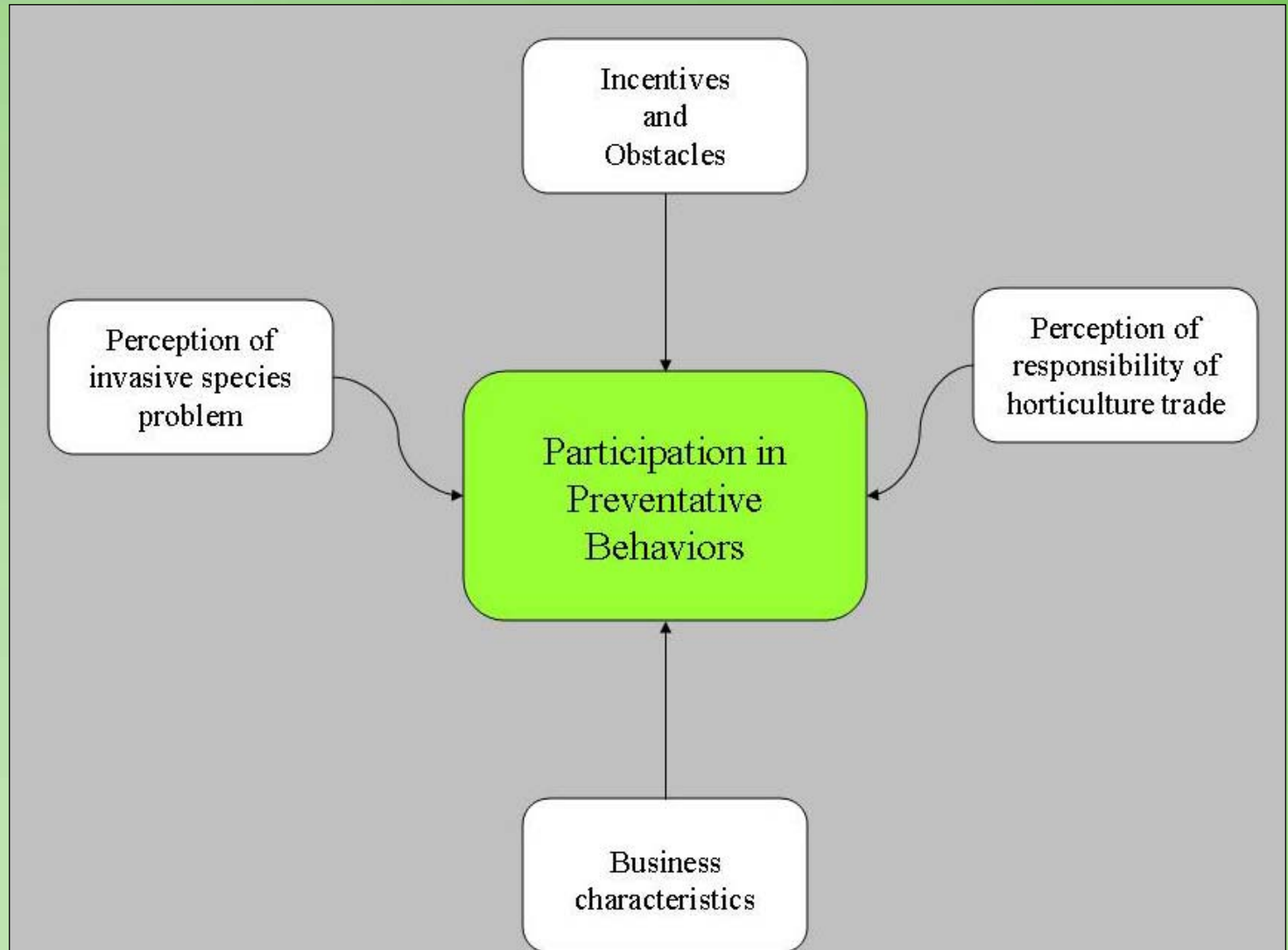
- Nationwide initiative created by a diverse group of stakeholders in 2001-2002
- Established Codes of Conduct for nursery professionals, government, the gardening public, landscape architects, and botanic gardens
- Since endorsed by many National and State Trade Associations (most recently by CANGC)

## Many similar regional efforts

- e.g., efforts in Florida, North Carolina, Massachusetts, and in California (Cal-HIP partnership and Plant Right campaign)



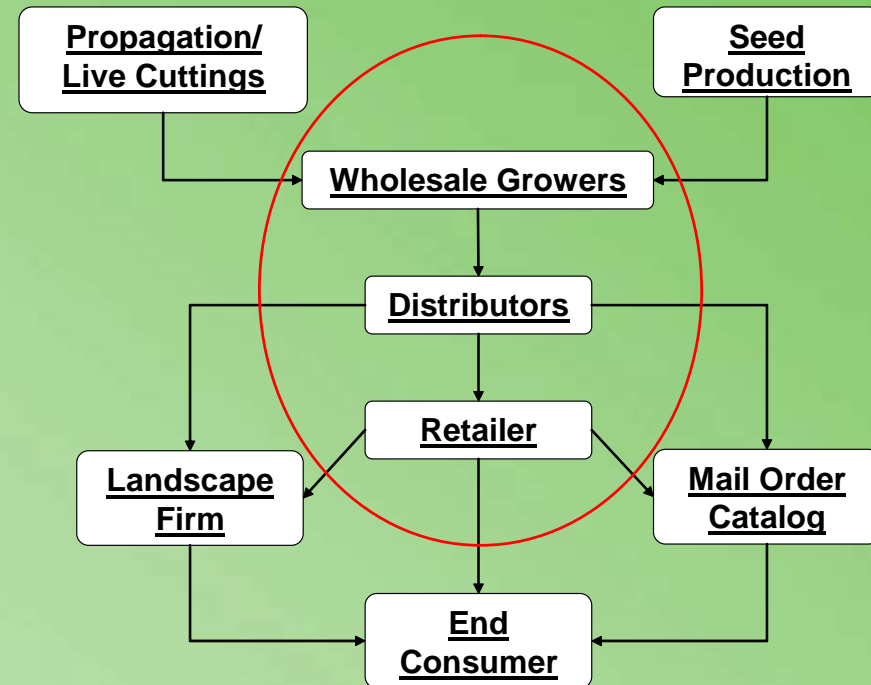
# Factors that may affect participation in preventive measures



# Project Overview

## Telephone survey of San Francisco Bay Area nursery professionals (N=54)

- Based on 7 preventive measures from the St. Louis Voluntary Codes of Conduct





# What we found (in a nutshell)

- High awareness of invasive plants and acceptance of responsibility as a trade
- Low awareness of St. Louis Codes of Conduct
- Moderate reported participation in preventive measures, high reported willingness
- Incentives and obstacles to prevention
- Factors significantly correlated with participation in prevention





# Nursery professionals' awareness of invasive plants is high

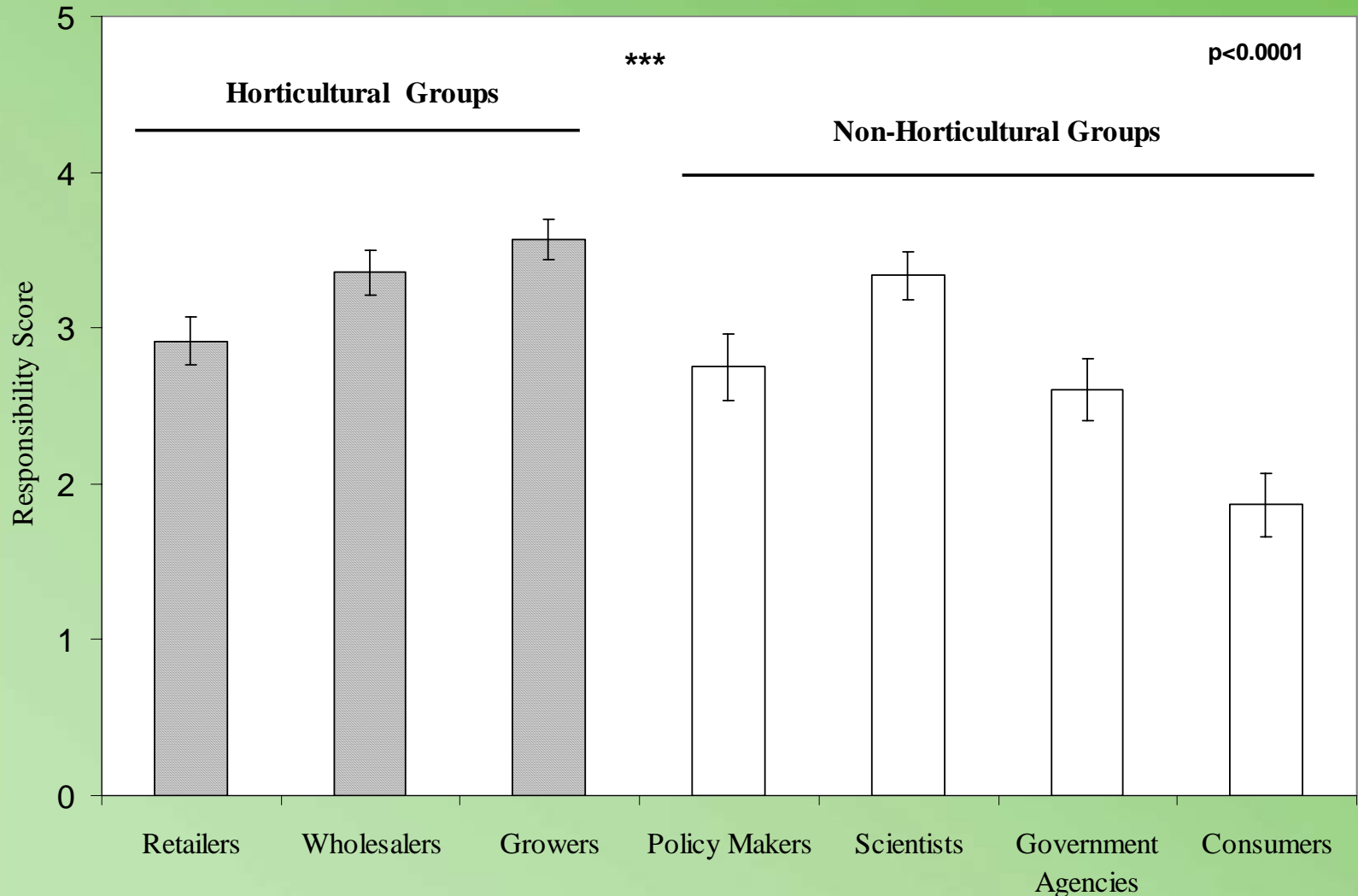
- All surveyed had heard of invasive species
- 93% agreed that “invasive plants are an important environmental concern”
- 89% agreed that “invasive plants have a negative impact on native plants and animals”




# Nursery professionals assign high responsibility to the horticulture trade

- 81% agreed that “nurseries sell invasive plants or plants that may become invasive”
- 82% agreed that “the horticulture trade plays a role in the introduction of invasive plants”


# Nursery professionals assign high responsibility to the horticulture trade





# Awareness of St. Louis Voluntary Codes of Conduct is low

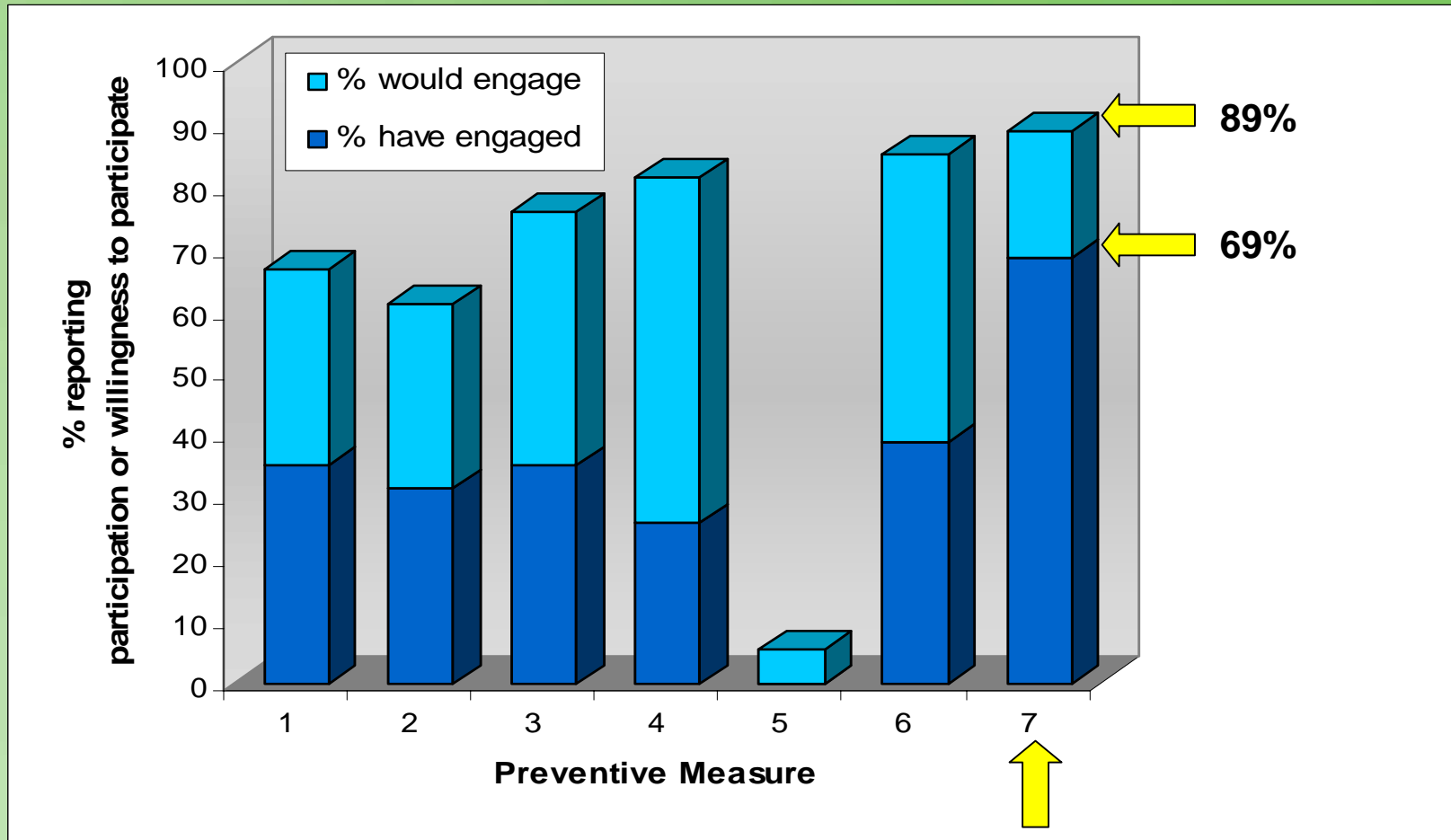
- Only 7% surveyed had heard of Codes
- 52% reported that learning of Codes made them more likely to participate in the preventive measures outlined in the initiative



# Participation in preventive measures is moderate, willingness high

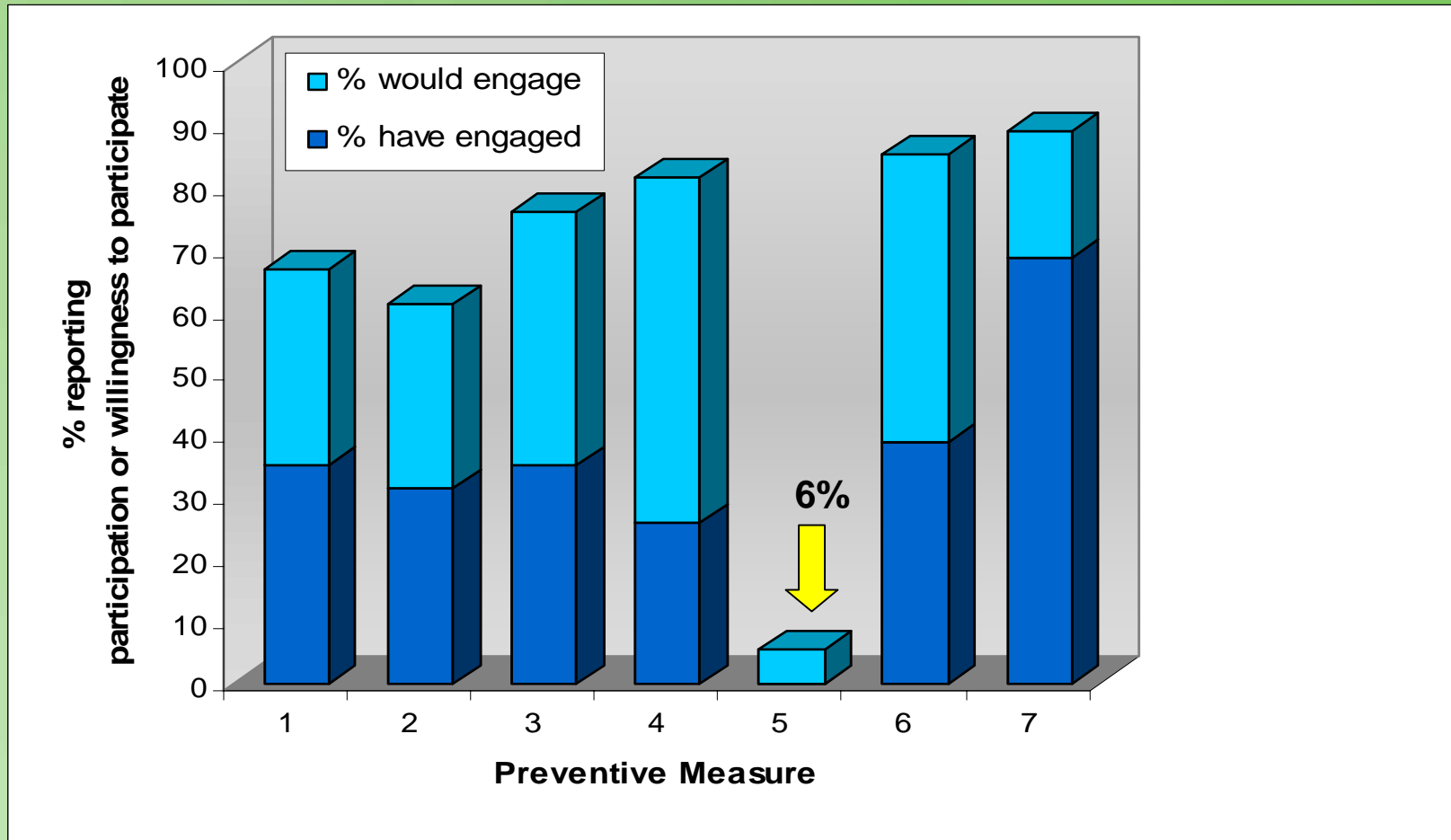
- Average respondent reported **having participated** in 2.4 (of 7) preventive measures
- Average respondent reported **willingness to participate** in 4.6 (of 7) preventive measures
- Nearly all (98%) respondents reported willingness to engage in at least one preventive measure

# Participation and willingness to participate



**#7: Encourage customers to use non-invasive plants**

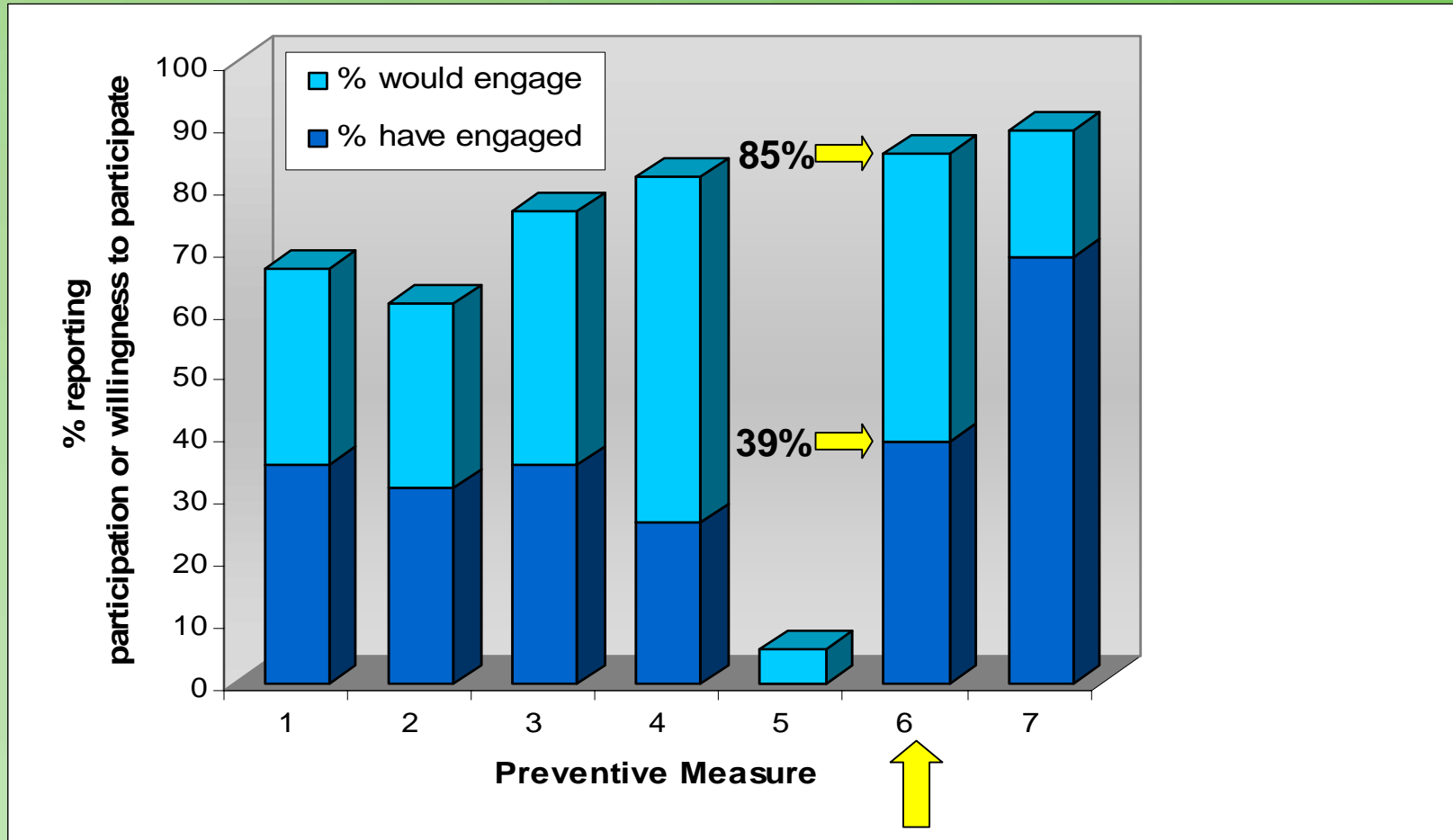
# Participation and willingness to participate



**#5: Breed alternatives to invasive plants**



# Participation and willingness to participate



**#6: Phase out sales of known invasive plants**

# Factors correlated with participation

- Respondents with higher awareness of invasive plants reported significantly higher participation in preventive measures
- Respondents reporting greater involvement in trade associations also reported significantly higher participation levels





# Incentives and Obstacles

## Top incentives (environmental awareness):

- Concern for the environment (89%)
- Cultivating a “green” business image (74%)
- Consumer demand (69%)

## • Top obstacles (practical issues):

- Lack of information (65%)
- Limited personnel (59%)
- Too time-consuming (57%)

# Conclusions

- You, too, can help prevent invasive plant introductions!
- Many people working within the trade appear receptive to adopting preventive practices
- Increasing outreach to nursery professionals (regarding prevention) can make a difference
- Scientists, practitioners, and consumers can help by providing clear and accessible information to nursery professionals on alternative plants and voluntary Codes



# Acknowledgements



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Sarah Connick

Sarah Reichard

Terri Kempton

Brendon Larson


Terri Williamson

Kari Norgaard

Beth Leger

Survey participants

# For more information...



**Burt, J.W., A.A. Muir, J. Piovia-Scott, K.E. Veblen, A.L. Chang, J.D. Grossman, and H.W. Weiskel. 2007. Preventing horticultural introductions of invasive plants: potential efficacy of voluntary initiatives. *Biological Invasions* (online first) (Google “preventing horticultural introductions”, or email [jwburt@ucdavis.edu](mailto:jwburt@ucdavis.edu) to get pdf)**

## **St. Louis Voluntary Codes of Conduct**

[www.centerforplantconservation.org/invasives/codesN.html](http://www.centerforplantconservation.org/invasives/codesN.html)

## **Plant Right campaign (Cal-HIP)**

[www.plantright.org](http://www.plantright.org)

## **Cal-IPC Don't Plant a Pest Information**

[www.cal-ipc.org/landscaping/dpp/index.php](http://www.cal-ipc.org/landscaping/dpp/index.php)

## **TNC Global Invasive Species Initiative - Keeping Horticulture Green**

<http://tncweeds.ucdavis.edu/horticulture.html>