

Societal Changes are Creating Opportunities and Challenges for Fruit Growers

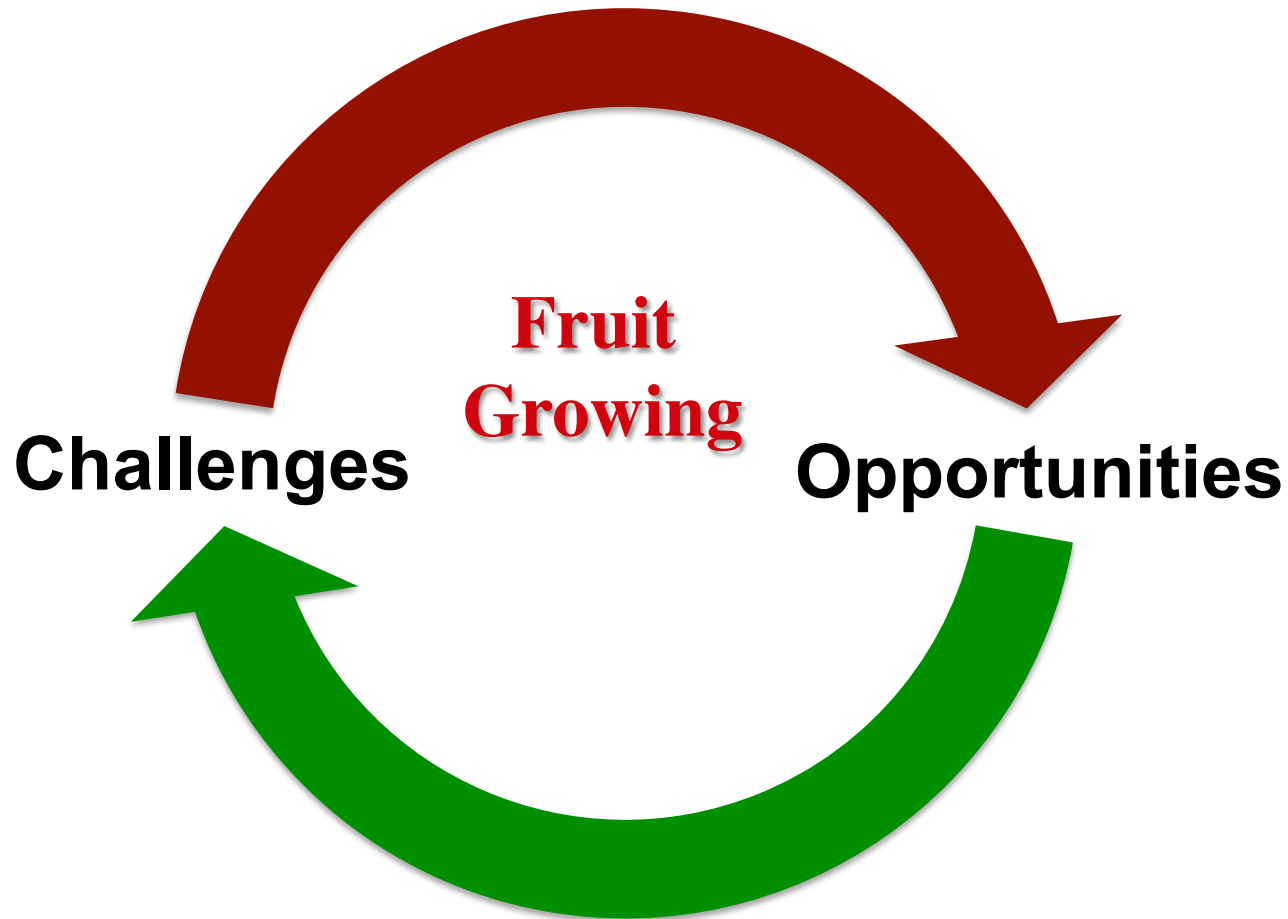
IFTA 56th Annual Conference Intensive Workshop

February 23 to March 1, 2013

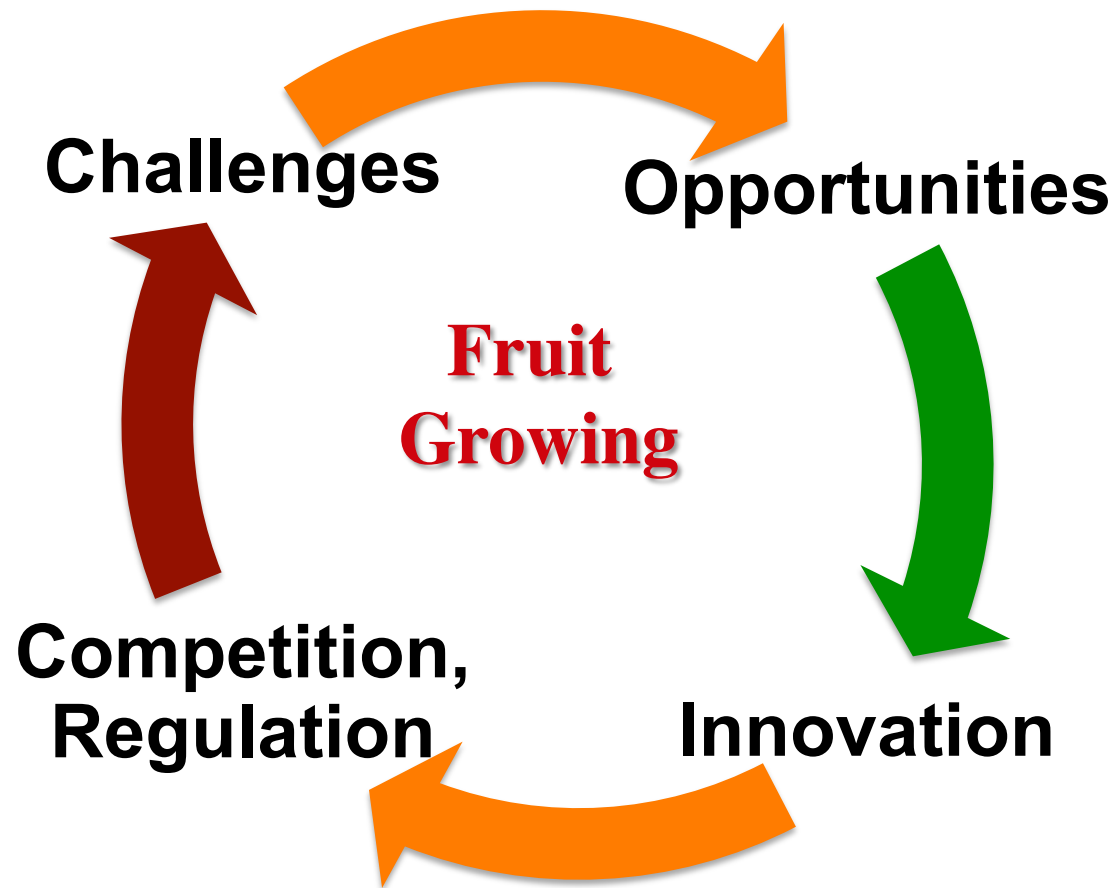
Boston, MA

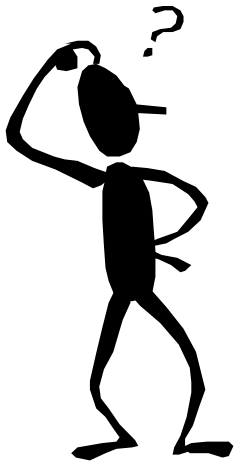
Dave Rosenberger
Professor of Plant Pathology
Cornell's Hudson Valley Lab
Highland, NY

The Cycles of Challenge and Opportunity



The Cycles of Challenge and Opportunity

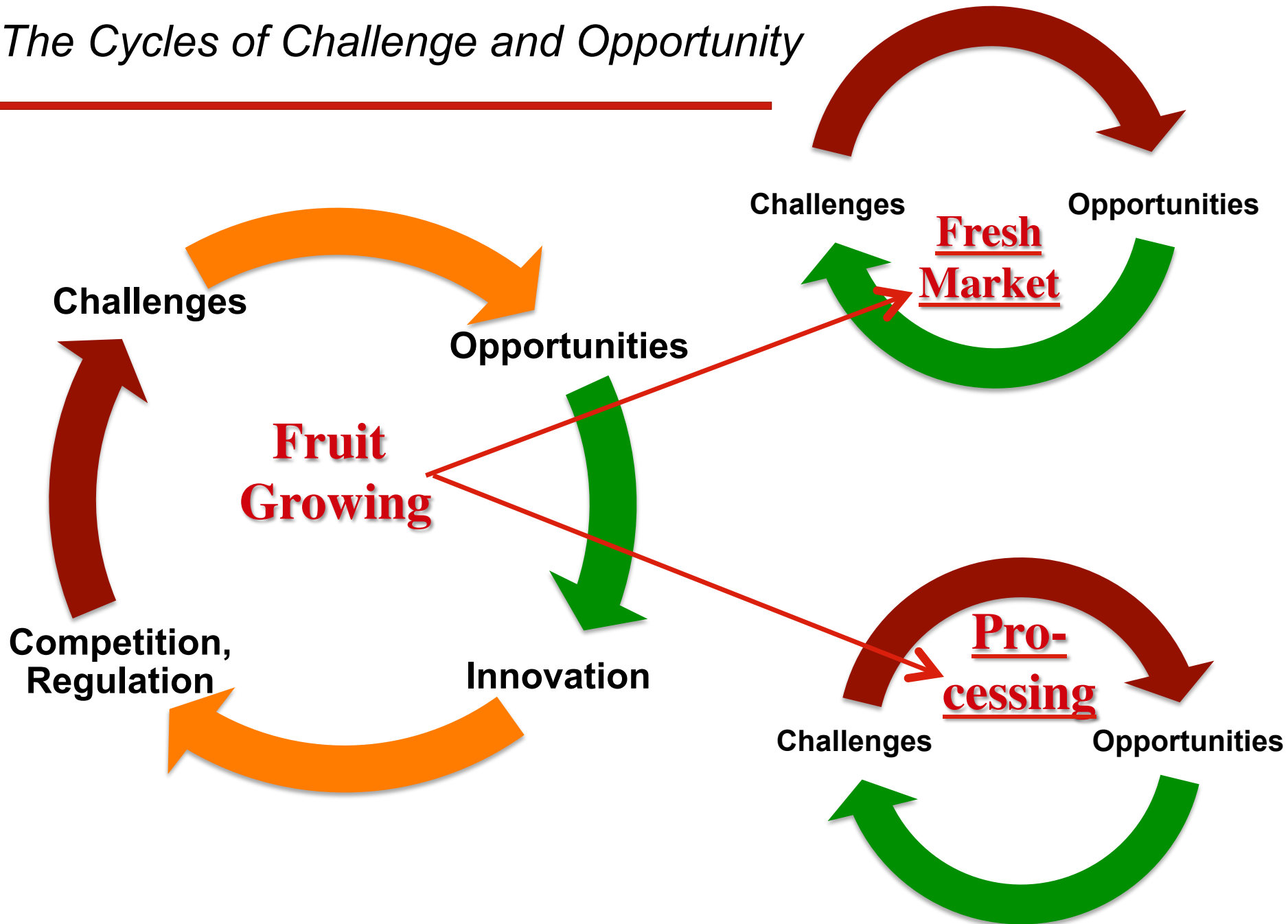




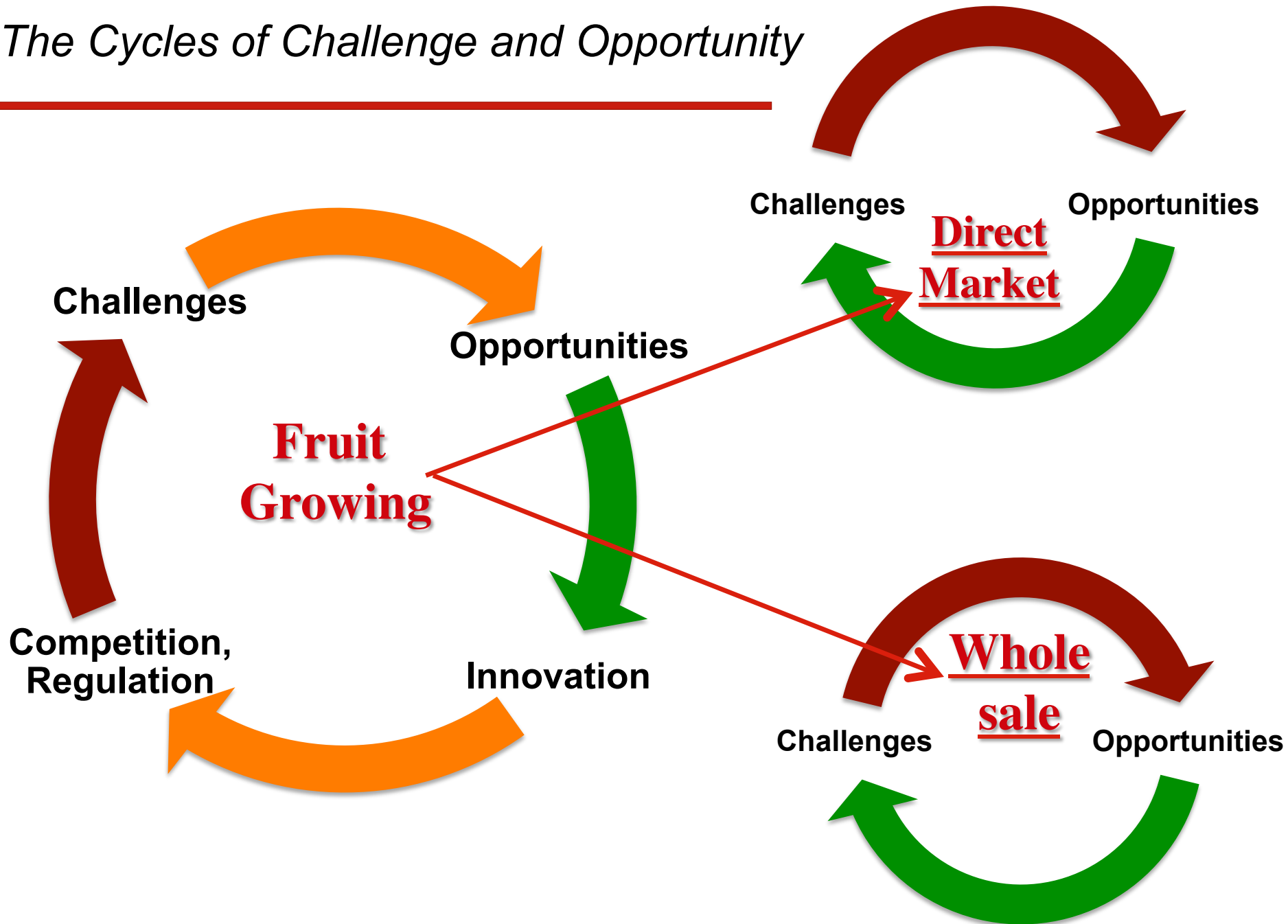
Farm Management Challenges for the Next Decade

1. Reliable labor
2. Government regulation and monitoring:
food safety, pesticides, labor, etc.
3. Transitioning farms to the next generation
4. Maximizing benefits of new technologies
5. Effects of climate change and exotic pests
6. Accessing reliable information

The Cycles of Challenge and Opportunity



The Cycles of Challenge and Opportunity



Challenges for wholesale producers

1. Efficient production via technology and economies of scale.

Focus of intense investigations

- This meeting: 30 talks by 22 scientists
- Roughly 25 talks focus on efficiency via
 - > mechanization
 - > tree structure
 - > plant growth regulators
 - > using models for thinning, irrigation.

2. Over-production

Challenges for wholesale producers

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Focus of intense investigations

- This meeting: 30 talks by 22 scientists
- Roughly 25 talks focus on efficiency via
 - > mechanization
 - > tree structure
 - > plant growth regulators
 - > using models for thinning, irrigation.
- What is the next horizon for technology?

2. Over-production

Challenges:



Challenges: Changes must be socially acceptable



Challenges: Understanding society (consumers)

Living in times of opportunity



Challenges: Understanding society (consumers)

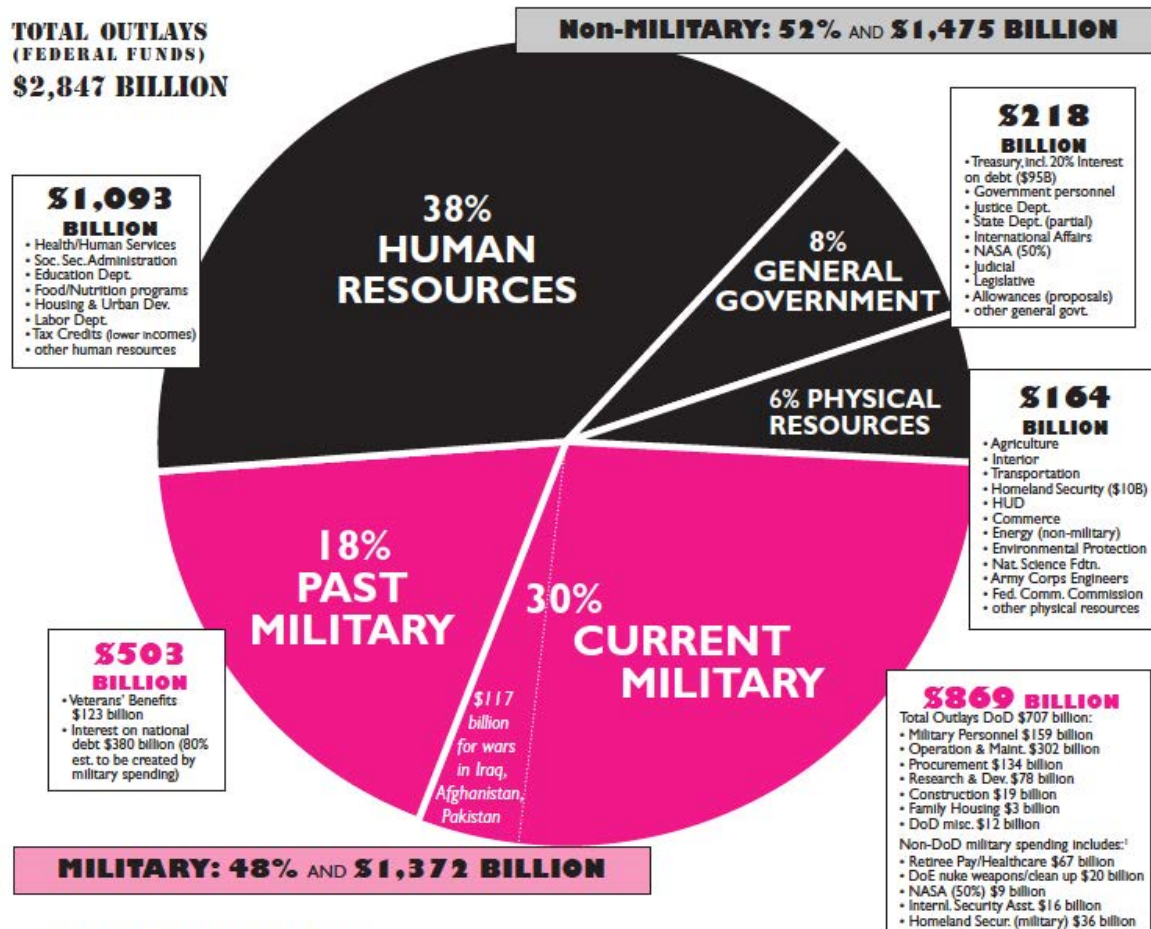
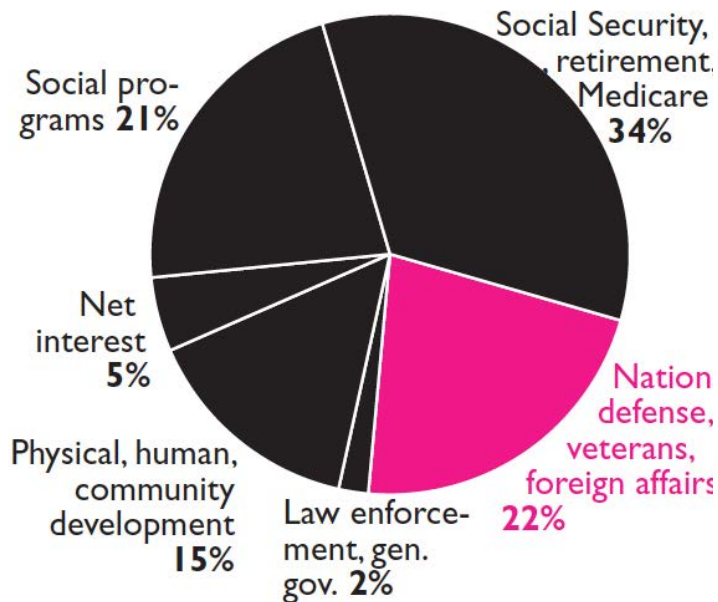
Or living in times of fear:
Survivalist training for kids.



Challenges: Understanding society (consumers)

Living in times of fear?

Why else would we commit 48% of our federal budget to defense spending?



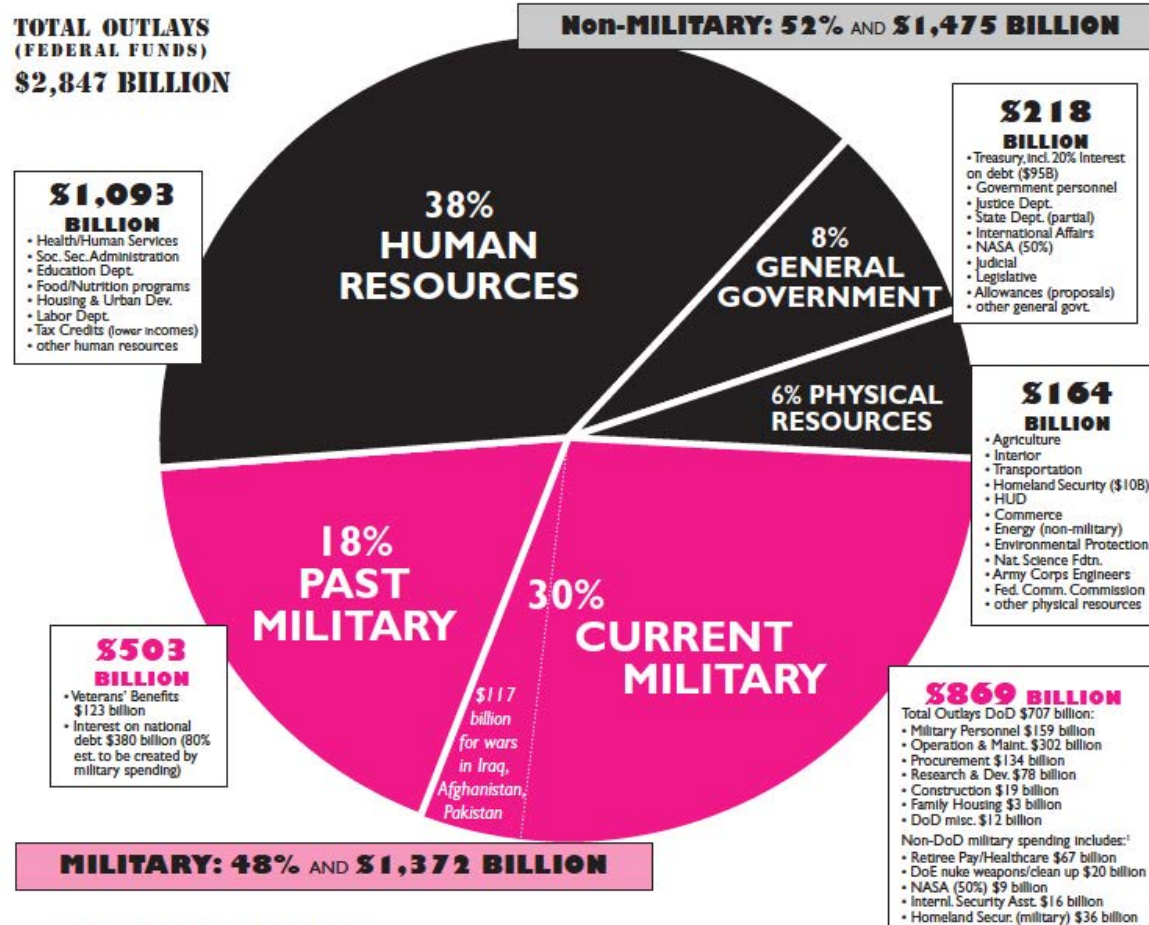
Challenges: Understanding society (consumers)

Living in times of fear?

Budget issues will limit future gov't support for agriculture!

- *Research*
- *Extension*
- *Crop insurance*
- *Reduced tax assessments for ag*
- *Other farm programs*

Right now, U.S. citizens are more scared than hungry.



Land-Grant Universities are Changing

Major changes already underway:

1. Public support for ag research is waning.
2. State/Federal funding is decreasing.
3. Most new funding is based on competitive grants, an inefficient process that consumes a lot of scientist time and limits program flexibility.
4. Baby boomer scientists are retiring.
5. Many applied research/extension positions will not be refilled.

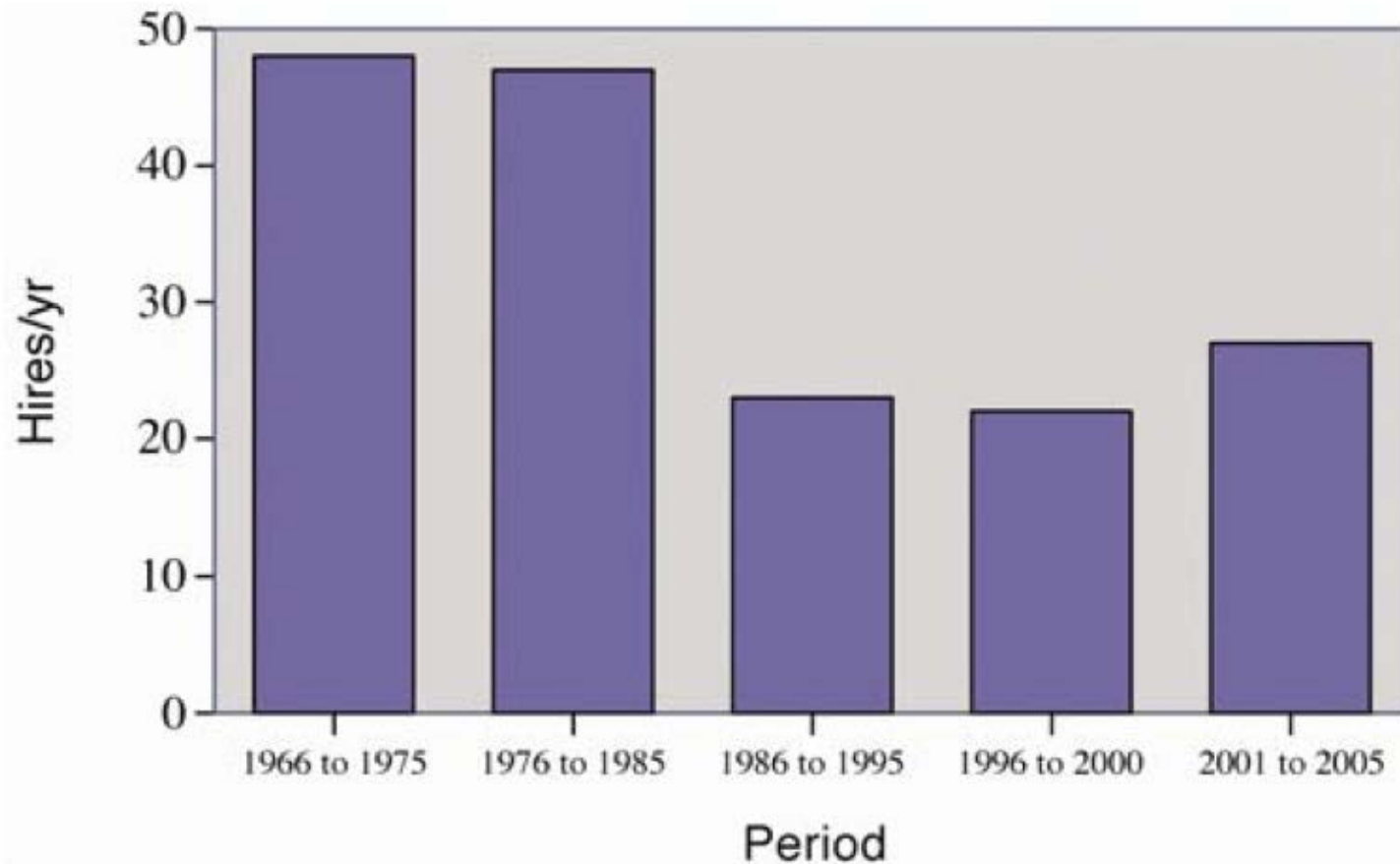


Fig. 1. Annualized number of hires per year of newly graduated Ph.D. recipients in plant pathology at 4-year institutions. (Source: National Science Foundation survey of earned doctorates)

From: *Gadoury et al. 2009. Disciplinary, institutional, funding, and demographic trends in plant pathology: What does the future hold for the profession? Plant Disease 93(12):1228-1237.*

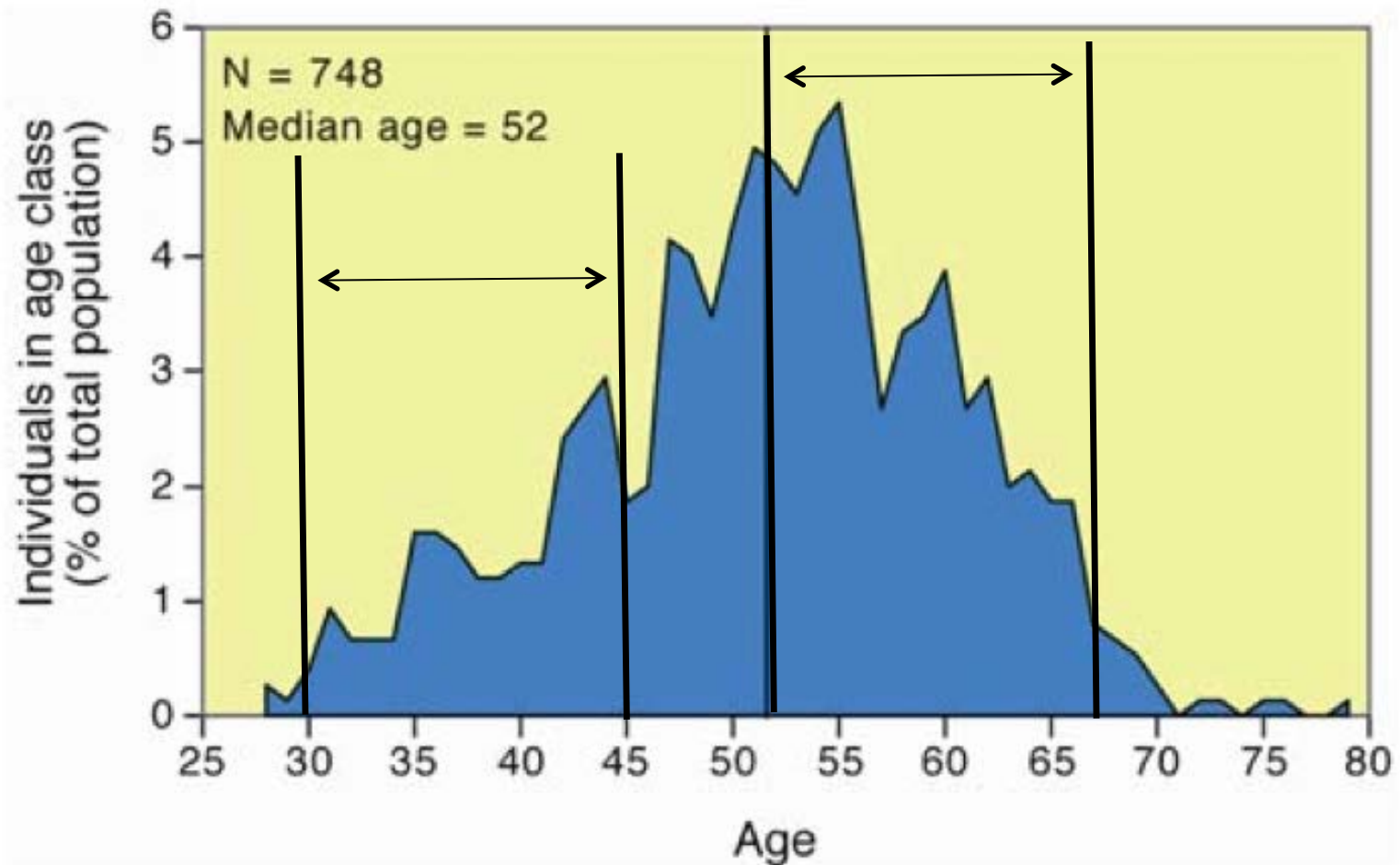
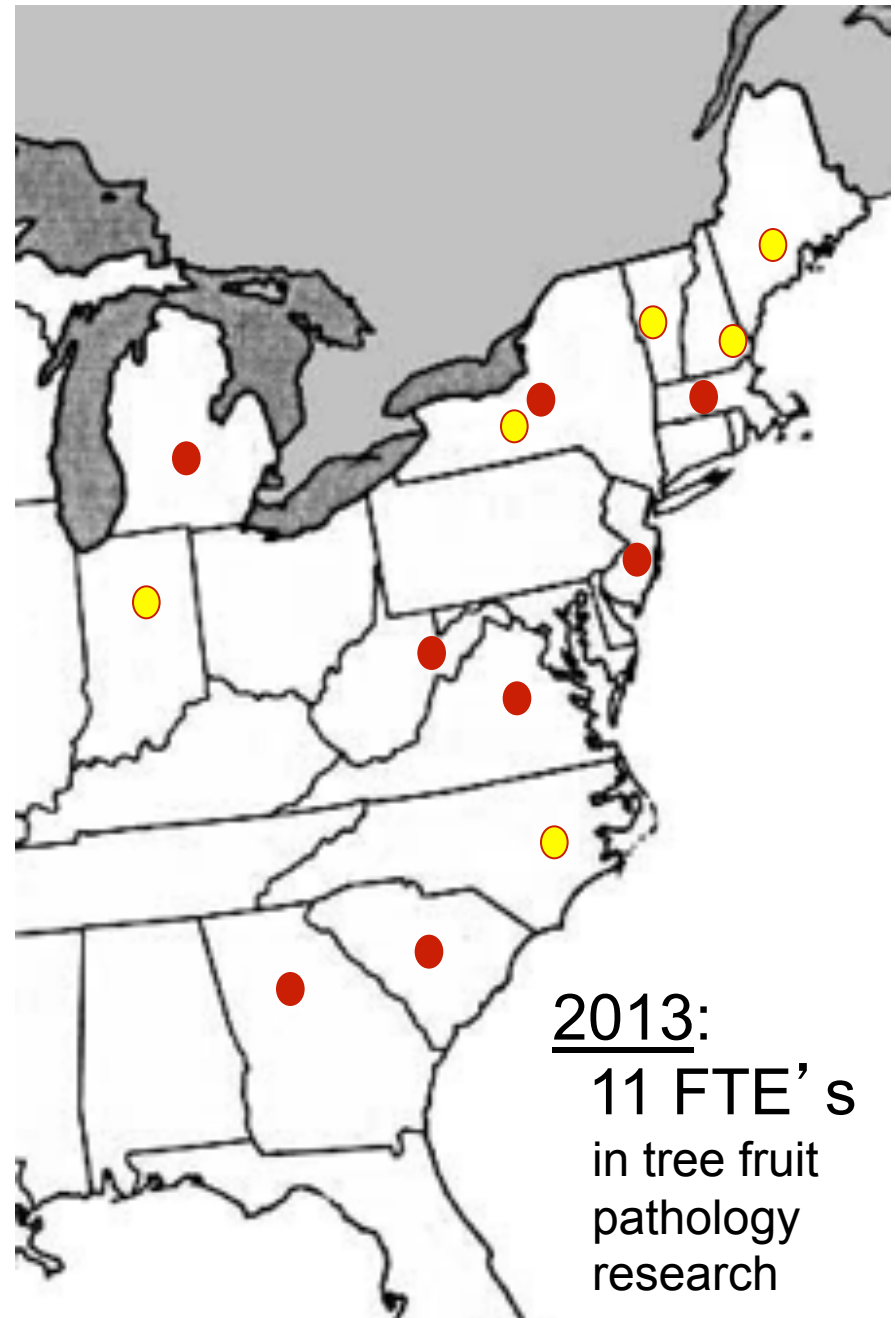
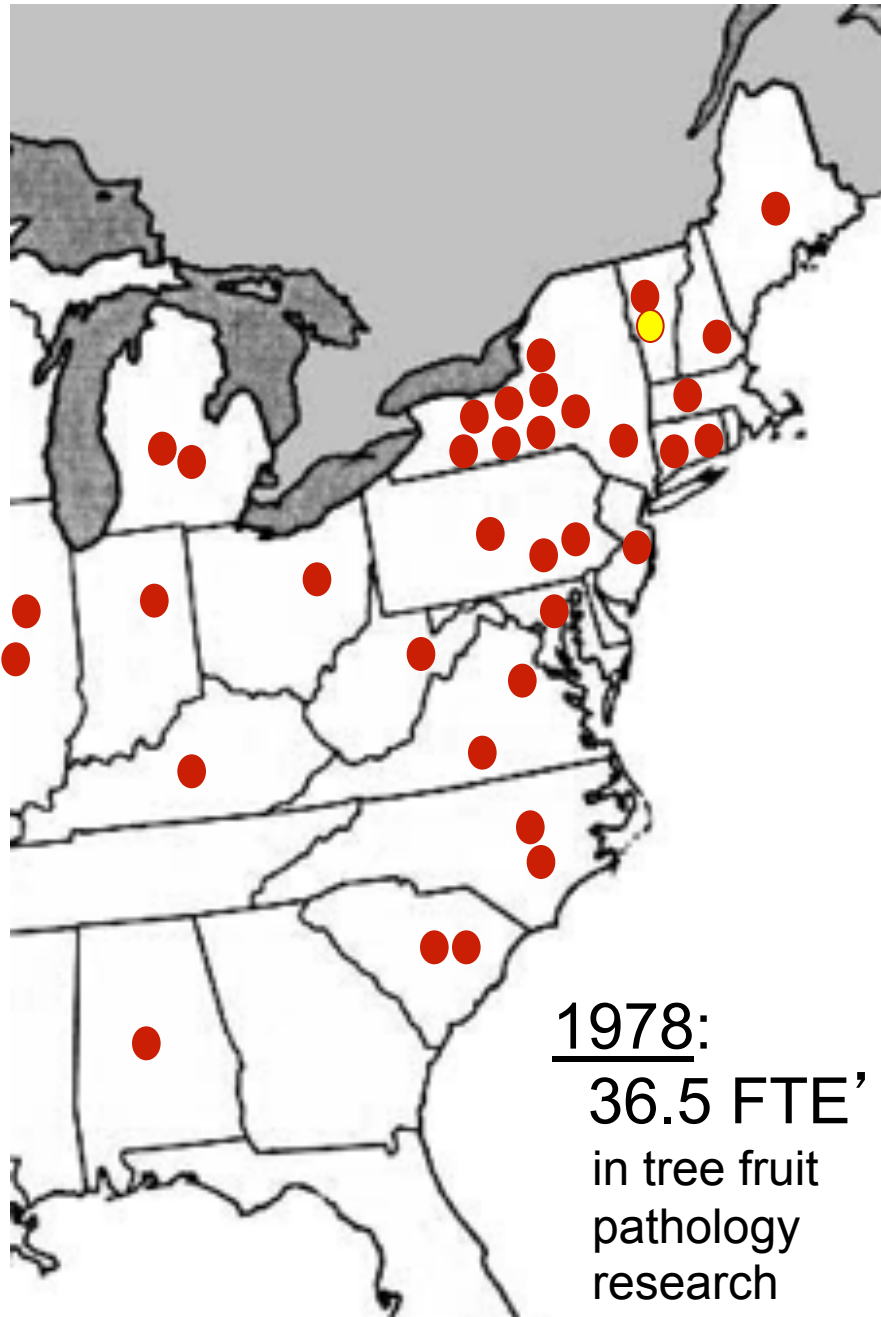


Fig. 6. Age distribution of U.S. university plant pathology faculty (from The American Phytopathological Society membership database).

From: *Gadoury et al. 2009. Disciplinary, institutional, funding, and demographic trends in plant pathology: What does the future hold for the profession? Plant Disease 93(12):1228-1237.*



Farming is becoming more complex:

1. Increased levels of complexity:
 - Labor supply, worker training and safety
 - Food safety issues
 - Marketing issues
 - Horticultural options
 - Climate change; pest control
2. Local sources for applied research & extension will become more limited.
3. **Where will you get your information in the future?**

Challenges: Future Sources of Information?

1. Internet:

- Who will generate the content?
- Who will update the content?
- Is the content regionally adapted?

2. University based scientists.

Challenges: Future Sources of Information?

1. Internet:

- Who will generate the content?
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2. University based scientists.

3. Agrichemical suppliers.

4. Non-governmental organizations: e.g. IFTA

5. On-farm experts (or owner/operators)

6. Private consultants

Challenges: Climate change and new pests

More hail, floods, drought, and variability?

Need for hail netting may become more widespread?

Access to water may limit some farms?

New pests

Native pests extending their ranges.

Exotic pests (stink bug, spotted-wing drosophila)



View of the super-spindle planting (3 ft x 11 ft) of scab-resistant apples at HVL, 21 July 2012.





Observations from 2012:

Drought-induced rootstock cankers on 3-yr-old trees:

- Canker is caused by *Botryosphaeria dothidea*, an opportunistic pathogen associated with drought stress in many crops.
- When planted 3-ft apart within rows and 10-ft between rows, super spindle trees have a very limited rooting area.
- **Tightly spaced trees may need more irrigation than older systems.**

Opportunities:

1. More interest in food and health:

Last Updated Wednesday, July 18 2012

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Cherry Study Yields 'Super'fruit Insights

CMI polled industry execs and learned why certain ingredients are favored over others.

By Joanna Cosgrove

Published August 2, 2010

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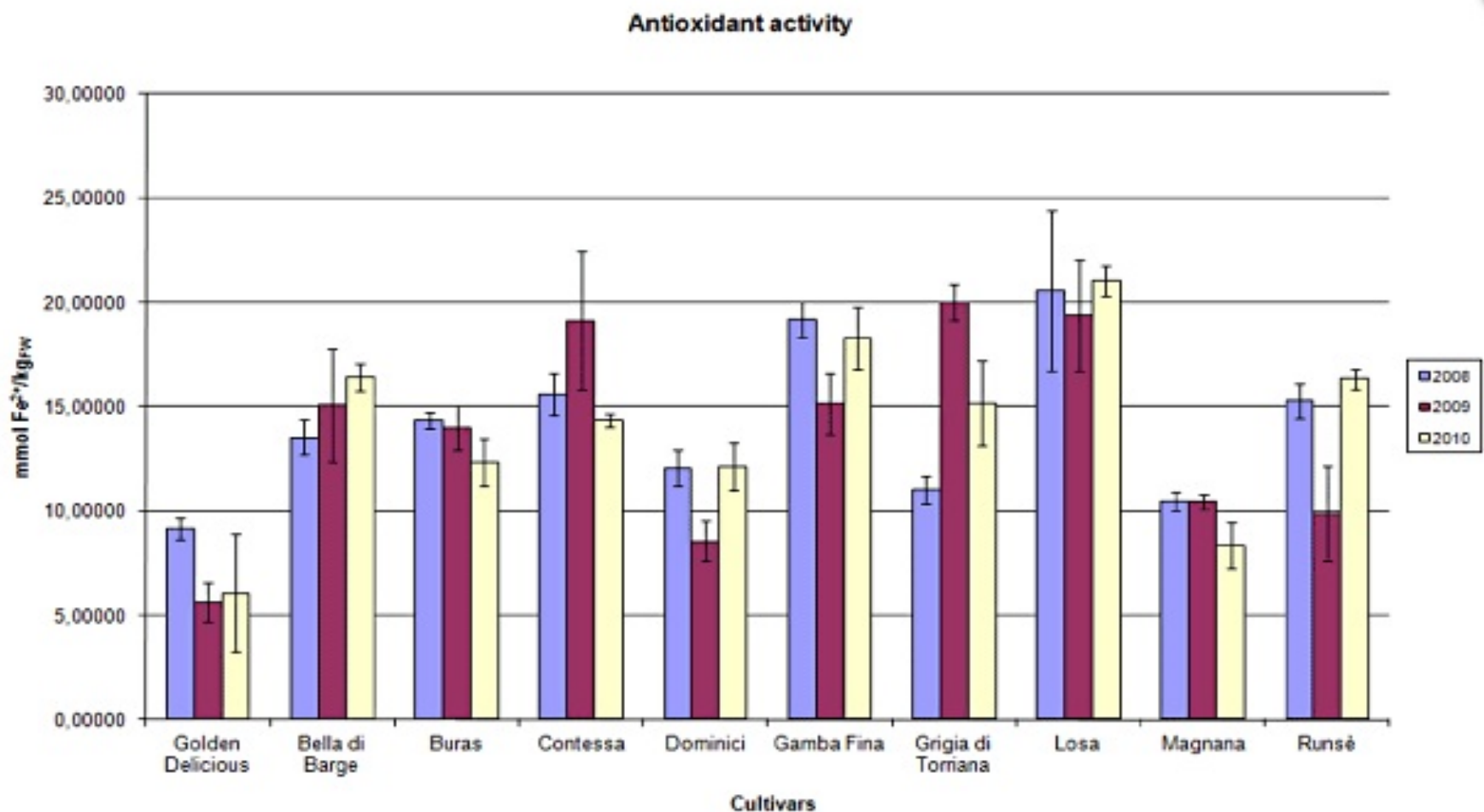
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Tart cherries fall squarely into the superfruit category but are decidedly lower profile than sweeter-fleshed cherries. In an effort to determine how to increase the appeal and reach of tart cherries, the Lansing, MI-based Cherry Marketing Institute (CMI) recently polled senior food industry executives to get to the bottom of the factors that most influence their purchasing decisions. As a result, they came away with a deeper understanding of why certain ingredients make it into products that appear on grocery shelves and restaurant

APPLICATION OF SENSORY, NUTRACEUTICAL AND GENETIC TECHNIQUES TO CREATE A QUALITY PROFILE OF ANCIENT APPLE CULTIVARS



Some Antique Apples for Modern Orchards

Ian A. Merwin, Department of Horticulture, Cornell University, Ithaca, NY



Figure 27. Winter Banana



Figure 28. Golden Russet



Figure 29. Baldwin (Woodpecker)



Figure 30. Albemarle (Newtown) Pippin



Figure 31. GoldRush



Figure 32. Black Oxford



Figure 33. Winesap



Managing Your

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If you are genuinely understand that machines,... [Read](#)



Simple Dietary changes to be made to combat obesity

April 9, 2012 | [Leave a Comment](#)

Opportunities:

1. More interest in food and health.
2. Many consumers want to know where their food is produced.



LOCAVORE

A Seasonal, local food network



LOCAVORE is the easiest way to find local, in-season food. Pinpoint nearby farmers' markets & farms that sell the products you love. Discover seasonal recipes. Share it all on Facebook.

Yup, it's free.



Available on the
App Store



Available on the
Android Market

Find what's in season

See what is in season where you are, and what is coming in season.

facebook

We ate local!



Luke Sbeghen ate lo
Cleveland, Queensland, A

It was in my Food Cor
delicious! The super cr

Opportunities:

1. More interest in food and health.
2. Many consumers want to know where their food is produced.
3. Some consumers will pay top prices for what they perceive as important!

Opportunities:

The New York Times

You're the Boss

The Art of Running a Small Business

AUGUST 30, 2012, 7:00 AM

Pitching an Organic Cigarette for Hipsters

By *CAROL ROTH*

In my last post, I r
helping students fi
review a pitch for a
contradictory in na



Opportunities for direct marketers

1. More interest in food and health.
2. Many consumers want to know where their food is produced.
3. Some consumers will pay top prices for what they perceive as important!
4. Farmers selling to consumers can capture (and profit from) the nostalgia and romance that folks today associate with farming.

Opportunities for direct marketers



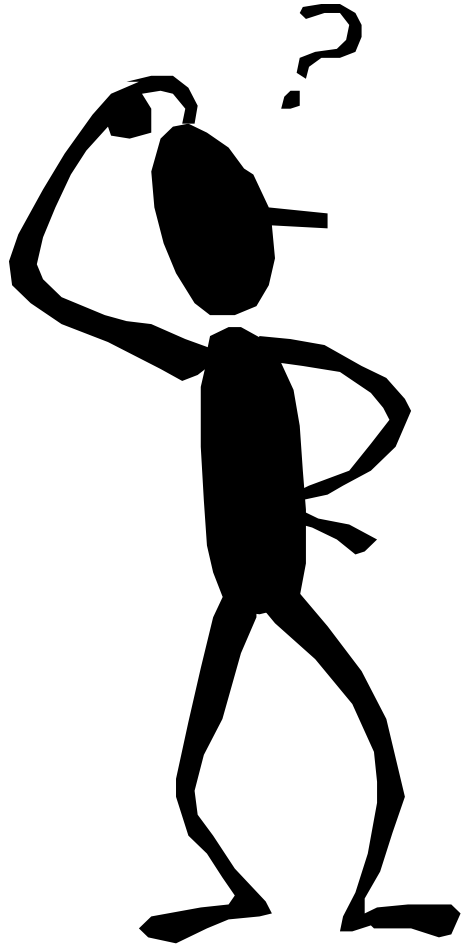


Cycles of Challenge and Opportunity Will Continue

Business plans may differ, but future success will depend on our abilities **recognize challenges** and, through innovation and hard work, **turn them into opportunities.**



Challenges and Opportunities:



The future holds an abundance of both.