BEYOND BEAUTY: THE OPPORTUNITIES AND CHALLENGES OF COSMETICALLY IMPERFECT PRODUCE
Presentation Outline

- Technical Orientation
- Welcome

**Jeff Farbman**
*Wallace Center at Winrock International*

- Beyond Beauty
- Questions and Answers
- Upcoming Opportunities, etc.
WALLACE CENTER at WINROCK INTERNATIONAL

- Market based solutions to a 21st Century food system
- Work with multiple sectors – business, philanthropy, government
- Healthy, Green, Affordable, Fair Food
- Scaling up Good Food
NATIONAL GOOD FOOD NETWORK: VISION
Supply Meets Demand

- There is abundant good food (healthy, green, fair and affordable) to meet demands at the regional level.

Information Hub

- The National Good Food Network (NGFN) is the go to place for regional food systems stories, methods and outcomes.

Policy Change

- Policy makers are informed by the Data and Analysis and outcomes of the NGFN and have enacted laws or regulation which further the Network goals.

http://ngfn.org | contact@ngfn.org
NGFN Food Hub Conference 2016

• The ONLY National Food Hub Conference

• March 30 - April 1
  o Pre-conference trainings Mar 29

• Trainings, Tours, Panels, Networking, Curbside Consulting, Workshops, and more!
Presentation Outline

- Technical Orientation
- Welcome
- Beyond Beauty
- JoAnne Berkenkamp
  Tomorrow’s Table
- Questions and Answers
- Upcoming Opportunities, etc.
Beyond Beauty: The Opportunities and Challenges of Cosmetically Imperfect Produce

JoAnne Berkenkamp
Acknowledgements

- USDA AMS / Minnesota Dept of Ag Specialty Crop grant
- Real Food Challenge
- Terry Nennich, formerly with Univ. of Minnesota Extension
- National Advisory Team
- Our farmers

Photo: Axdahl Farms
Core Question:
Is there a sweet spot for all players?

- Growers
- Distributors/
  Fresh-cut processors
- Foodservice
What we’re doing....

• Surveyed F&V farmers who grow for the fresh market in Minnesota (138)
• One-on-one interviews (16)
And...

- **Foodservice partnerships:**
  - Bon Appetit at 3 private colleges
  - Aramark at Univ of Minnesota -- Twin Cities
  - Sodexo at Univ of Minnesota – Morris

- **Produce / fresh-cut distributors**

- **Learnings from emergency food system**

Dec 2014 – June 2016

*Photo: flkr-franco folini*
Definitions:

• “Cosmetically imperfect”: fruit and vegetables grown for the fresh market that are fresh, undamaged and suitable for human consumption, but too cosmetically imperfect to meet minimum industry-accepted standards for cosmetic appearance (e.g. too large, too small, misshapen, miscolored, superficial scarring, etc.)

• Excluded product that isn’t fresh, damaged or has food safety problems

• “#1”: product that meet the standards our growers encounter with their larger wholesale buyers
Today: Farm-side research

- Types and rates of cosmetic imperfection in MN
- Causes
- Current uses
- Grower interest and concerns about expanding markets for imperfects
- Crops with the best prospects as imperfects
- The interplay with “#1” product
- Bringing CI to market efficiently
- Policy recommendations
Context in Minnesota

– Northern climate
– Diversified vegetable production, apples, melons
– Farms from very small up to 1000+ acres
– Hand-harvesting except green beans, corn and root crops

Photo: en.wikipedia.org
Rates of Imperfection in MN

• Generally 1 – 20%
• 30% or more in “bad years”
• **Highest:** apples, tomatoes, peppers, potatoes, carrots, parsnips, cauliflower, cantaloupe
• Often not tracked
• Under-estimated?

*Photo: flkr-bill mcchesney*
Types of Imperfection

- Over/under-sized
- Misshapen
- Superficial scarring
- Uneven coloration on the surface
- Others: double-hearted onions and sun-damaged cauliflower

Photo: flikr-market mgr
Causes

• Weather is the big one:
  – Major events: droughts, floods, hail
  – Less dramatic: late spring and early fall, wet springs then low rain, high winds, rain right before harvest, hot spells

• Pest damage and plant diseases

• Human variables: planting, preening, watering, harvesting
Current Uses of CI

• We estimate that roughly 75% of the imperfect product grown by Minnesota fresh-market produce growers is plowed under, composted or used as animal feed.

• The balance is typically sold or donated, with small volumes used by producers at home.
Sale and donation

• Typically less than 10% into commercial sale
• Sell chopper peppers, large squash/cabbage for fresh-cut
• Freezing/canning markets not accessible
• Lack of mid-size VA processing in MN
• Typically less than 20% direct sale
• Donations
Barriers to market

- Lack of an attractive market: 66% (moderate or major barrier)
- Cost of labor: 56%
- Too busy at harvest time: 52%
- Lack of labor: 41%

Data Source: Beyond Beauty Report No. 1, May 2015, Berkenkamp and Nennich

Photo: flikr
Grower Interest

- 30% very interested
- 52% moderately interested
- 14% already have enough markets for imperfects
- 5% not interested in selling imperfects

Caveats:

- Viewed as “gravy”
- Supplemental income vs. core part of business model?
- All else being equal....

Data Source: Beyond Beauty Report No. 1, May 2015, Berkenkamp and Nennich
Photo: flkr-market manager
Market Trends

• Rising buyer expectations
  – commercial buyers (not USDA stds)
  – consumers

• Competition with imported hoophouse and greenhouse-grown product

• Contradiction between sustainability and perfection?

Photo: JoAnne Berkenkamp
Crops with Best Prospects from Grower Perspective based on:

- types of imperfections they most commonly experience
- harvesting practices
- post-harvest handling and sorting needs
- the scale and predictability of potential supply
- perishability
- existing markets for imperfects

Photo: flikr-graibeard
Crops:

- **Strong prospects as imperfects:** Tomatoes, cucumbers, apples, zucchini and summer squash, watermelon, potatoes, cauliflower, hard squash, pie pumpkins and (miscolored) peppers.

- **Moderate prospects:** Cantaloupe, green beans, Brussels sprouts, sweet corn, broccoli, onions, eggplant and carrots.

- **Not viable:** Salad greens, parsnips, turnips, beets, radishes, rutabagas, kohlrabi, asparagus and berries.
Interplay with #1

• Maintaining price and volume for #1 is paramount for growers
• Supplement income with imperfects without negative impacts on #1
• Build **NEW** markets
• Cannibalization where imperfects can substitute for #1???
• Gross rev. vs. net profit

*Photo: Ron Clark, Imperfect Produce*
Imperfects beneficial to locally oriented growers if:

- buyers of conventional, non-local #1 product become interested in purchasing **locally grown and/or local organic imperfects instead**
- **new buyers** enter the market or expand their demand, such as low-income shoppers whose purchasing is constrained by existing prices for #1 product
- **savvy marketing efforts** make a virtue of imperfection, maintaining if not increasing prices for new, differentiated products
- greater acceptance of imperfection leads foodservice buyers to **expand their definition of “#1 product”**, enabling growers to sell more of what they grow, raising the perceived value of product that differs only by appearance, **and reducing pressure on growers to over-produce** to meet existing demand for traditional #1 product
- larger commercial buyers begin **competing for imperfects**
Considerations for Growers

• Covering marginal costs AND THEN SOME
  – We est. 60 – 75% of final cost is marginal cost
• Price and volume
• Add new markets or supplant existing ones?
• Availability of labor at harvest

Photo: Ron Clark, Imperfect Produce
Potential Efficiencies

- Flexible, responsive buyers
- Reduced sorting requirements
- Reducing packaging requirements
- Minimizing storage time on-farm
- Adding to deliveries of #1 product
Likely constraints:

• Supply constraints / hard to predict
• How much variation will foodservice embrace?
• Challenges at distribution and fresh-cut levels

Photo: Russ Davis Wholesale
Policy action:

- **determine existing volumes** of imperfect produce at the farm level (MN, NY, CA fruit)
- assess implications for **farm profitability**, particularly if it became common practice to transport imperfects nationally and/or internationally
- **support consumer education** about imperfection
- support innovative **marketing and value-added processing**
- encourage **produce donation** through permanent tax benefits for small and mid-size growers
- build capacity of the **emergency food system** to handle fresh produce.
Final Thoughts

• Languaging: The problem with “CI #2” → “Imperfects”
• Be wary of generalizing: Region- and farm-specific
• Weigh the potential implications for farm profitability, large buyers, consumers, enviro.
• How will a changing climate influence this issue?
• Questions?
Presentation Outline

- Technical Orientation
- Welcome
- Beyond Beauty
- Questions and Answers
- Upcoming Opportunities, etc.

JoAnne Berkenkamp
Tomorrow’s Table
joanne@tomorrowstable.com
Webinars are Archived

TOPICS!

http://ngfn.org/webinars
NGFN Webinars

3rd Thursday of each month
3:30p EST (12:30p PST)

http://ngfn.org/webinars

- Nov 19: 2015 Food Hub Survey
NGFN Food Hub Conference 2016

- The ONLY National Food Hub Conference
- March 30 - April 1
  - Pre-conference trainings Mar 29
- Trainings, Tours, Panels, Networking, Curbside Consulting, Workshops, and more!
Get Connected, Stay Connected

http://ngfn.org/database

National Good Food Network Database
Click to learn more

Search for: Wallace Center

YouTube

contact@ngfn.org

@ngfn
http://ngfn.org

contact@ngfn.org