60% of New York's farmland will transfer ownership in the next decade. How will we recruit new farmers in the Empire State?

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Median age increasing across NYS. Higher median age in non-metro NYS than in metro NYS. Most growth concentrated among 45-64 year olds.

The aging of NYS farmers may be part of a larger trend of an aging population and workforce, but nonetheless has significant implications for the future of agriculture and farming.

But, according to some researchers, while U.S. farmers are getting older, it is at a similar rate to the rest of the American labor force. (Zulauf)

NYS has a higher % (18.2%) of female principal operators than the U.S. average (13.7%).

Number of Farms with Spanish, Hispanic, or Latino Origin Operators: 2012

Selected New York Employment Projections: 2012-2022

<table>
<thead>
<tr>
<th>Region</th>
<th>Agricultural</th>
<th>Food Manufacturing</th>
<th>Total Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central New York</td>
<td>12.7</td>
<td>6.8</td>
<td>19.5</td>
</tr>
<tr>
<td>Finger Lakes</td>
<td>8.3</td>
<td>7</td>
<td>15.3</td>
</tr>
<tr>
<td>Southern Tier</td>
<td>7</td>
<td>5.5</td>
<td>12.5</td>
</tr>
<tr>
<td>Hudson Valley</td>
<td>6.6</td>
<td>12</td>
<td>18.6</td>
</tr>
<tr>
<td>New York Total</td>
<td>7.1</td>
<td>2.5</td>
<td>9.6</td>
</tr>
</tbody>
</table>

Projected Percentage Change

Source: Kevin Jack, NYS Department of Labor, https://www.labor.ny.gov/stats/lsproj.shtm
Employment Outlook for Agriculture, Food, Renewable Natural Resources & Environment Graduates

• 57,900 average annual employment openings, between 2015 and 2020, for U.S. college graduates with a bachelors degree or higher in:
  • Food
  • Agriculture
  • Renewable Natural Resources
  • Environment

• 35,400 average annual expected graduates in these fields

• 22,500 surplus of job opportunities to be filled by graduates in other majors

Strongest job/employment market for these jobs:

- Strongest job market expected for:
  - plant scientists
  - food scientist
  - sustainable biomaterials specialists
  - water resources scientists and engineers
  - precision agriculture specialists
  - farm-animal veterinarians.

- Strong employment market expected for:
  - e-commerce managers and marketing agents,
  - ecosystem managers
  - agriscience educators
  - crop advisors
  - pest control specialists.

“There is incredible opportunity for highly-skilled jobs in agriculture...Those receiving degrees in agricultural fields can expect to have ample career opportunities. Not only will those who study agriculture be likely to get well-paying jobs upon graduation, they will also have the satisfaction of working in a field that addresses some of the world’s most pressing challenges. These jobs will only become more important as we continue to develop solutions to feed more than 9 billion people by 2050.”

Tom Vilsack, U.S. Secretary of Agriculture

“Other” Fields from which Graduates will fill Surplus Job Opportunities

The surplus of job opportunities that will go unfilled by graduates from Food, Agriculture, Renewable Natural Resources and Environment fields, are expected to be filled by graduates in:

- Biology
- Business administration
- Engineering
- Education
- Communication
- Consumer sciences

Wrap up……
New fruit growers in NY

People entering the fruit business in NY

• We have seen many new, younger, or semi-younger people (some Hispanics) entering the fruit business, coming back to the family farm or starting second careers after retirement in NY.

• In these uncertain economic times, being a fruit grower is a tough and very risky career choice.
New fruit growers (whether those young growers whose families are changing hands from one generation to another or newcomers of all ages with very diverse educational and professional backgrounds) have two advantages over their predecessors:

- **Technology** (new varieties, new rootstocks, and the possibility to adopt a highly productive apple system.
- **The availability of educational and research information** via extension programs, online webinars, and WebEx, polycom meetings.
Technology

- The next generation of fruit growers and newcomers can find so much information at the touch of a button with the Internet, smartphone applications, and other mobile devices today.

- **Most of them can be defined as:** (1) technologically savvy with email, new software, and internet use, (2) connected via social media groups, (3) early adopters who thrive on change, (4) more inclusive and collaborative, and (5) more upbeat and confident.
Spanish-speaking Educational Efforts
Educational efforts

• Commercial fruit growers are increasingly relying on Spanish-speaking workers for agricultural production
• Over the past five years or so, many fruit farm operations have undergone significant growth
• Orchards that used to employ only a handful of people with low-skill horticultural talent now look for more help to meet this demand
• Since 2011, the Cornell Cooperative Extension Fruit Program have introduced Spanish-speaking commercial farm workers to basic and applied pomological and pest management concepts and modern apple pruning practices in the Spanish language
<table>
<thead>
<tr>
<th>Topic</th>
<th>Speaker</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pruning</td>
<td>T. Robinson</td>
</tr>
<tr>
<td>Fire blight symptoms, recognition</td>
<td>D. Breth</td>
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<tr>
<td>Apple tree life cycle</td>
<td>M. Miranda Sazo</td>
</tr>
<tr>
<td>Rootstocks</td>
<td>M. Miranda Sazo</td>
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<tr>
<td>Identifying apple pests</td>
<td>D. Breth</td>
</tr>
<tr>
<td>Planning Ahead for Emergencies</td>
<td>M.J. Dudley</td>
</tr>
<tr>
<td>How the Business Part of the Farm Works</td>
<td>M.J. Dudley and A. DeMarree</td>
</tr>
<tr>
<td>Quality Grade of Apples</td>
<td>C. Kahlke</td>
</tr>
<tr>
<td>Future Opportunities and Job Satisfaction</td>
<td>M.J. Dudley</td>
</tr>
<tr>
<td>Preventing Common Injuries</td>
<td>A. Meyerhoff</td>
</tr>
<tr>
<td>Crop Load Management</td>
<td>T. Robinson</td>
</tr>
<tr>
<td>Reporting Injuries and Taking Care of Yourself</td>
<td>A. Meyerhoff</td>
</tr>
<tr>
<td>Changes in Immigration Policy</td>
<td>M.J. Dudley</td>
</tr>
<tr>
<td>Improving Workplace Relations and Communication</td>
<td>M.J. Dudley</td>
</tr>
<tr>
<td>Cutting out fire blight and recognizing other pests</td>
<td>D. Breth</td>
</tr>
<tr>
<td>Respirator fit test demonstration</td>
<td>A. Meyerhoff</td>
</tr>
<tr>
<td>Topic</td>
<td>Speaker/Source</td>
</tr>
<tr>
<td>----------------------------------------------------------------------</td>
<td>----------------------------------------------------</td>
</tr>
<tr>
<td>Managing Orchard Workers for Higher Labor Efficiency</td>
<td>Jose Iniguez</td>
</tr>
<tr>
<td>Round table discussion about the advantages and disadvantages of</td>
<td>Vilo Rosario, Sergio Rosario, Jose Iniguez, Jose</td>
</tr>
<tr>
<td>working smarter not harder and entrepreneurship</td>
<td>Perez</td>
</tr>
<tr>
<td>How to recognize the damage produced by black stem borer</td>
<td>Mario (material prepared by Debbie)</td>
</tr>
<tr>
<td>Physiological effects of pruning and types of pruning cuts</td>
<td>Leo Dominguez</td>
</tr>
<tr>
<td>Precision pruning and hand thinning can improve fruit quality</td>
<td>Terence Robinson</td>
</tr>
<tr>
<td>Basic scouting in apple orchards</td>
<td>Mario (material prepared by Debbie)</td>
</tr>
<tr>
<td>What you need to know about the new immigration reform – DAPA and</td>
<td>Marie Jo Dudley</td>
</tr>
<tr>
<td>what it might mean for Farmworkers</td>
<td></td>
</tr>
</tbody>
</table>
First Summer Fruit Tour for Spanish-speaking Farmers and Workers

- Last year several growers sent their employees to the tour for Spanish-speaking employees featuring farms with Hispanic ownership and management
- The participants learned about diseases, drainage, clearing of new properties, deer fence installation, overall management of new high density orchards, tree nursery production, mechanical summer pruning, and use of a reflective groundcover fabric
- The tour was well attended with approximately 105 participants
- A generous group of Orleans fruit growers prepared and served a nice barbeque chicken dinner to all attendees at the end of the tour.
Challenges

- Many New York fruit farm operations that used to employ only a handful of people with low-skill horticultural talent now look for more help to meet this demand.
- Despite their search for horticultural talent to support their recent plantings, new investments, or succession plans, some fruit growers still lack a reliable, skillful, and committed horticultural team to fuel potential growth or transitioning in the next 5 to 10 years.
- There are several fruit farm operations without a next generation member interested to continue farming.
- Several farms will be terminated or sold to whoever wants to continue growing fruit.
Future

• The success and future of the Cornell Spanish-speaking Fruit Program is promising

• However, basic technical knowledge among Hispanic orchard workers still needs to be improved, and the Cornell Fruit Extension program has identified this as a key area for educational programming the following years

• The preliminary results (increased attendance to schools, interest for tours, perceived level of knowledge gain, and the request for more and more applied technical and business training) build a case for an in-depth evaluation to develop more curriculum or modules in horticulture, pest management, business management, accounting, etc., in the near future

• In the next 5-10 years, we need to educate the “Next and First Generation” of Hispanic fruit growers and owners (or partners) in New York State
JORDAN FISHER

Mapleview Dairy, LLC
Cornell CALS ‘12

- B.S. in Animal Science
- Exchange at Cal Poly S.L.O.
- Internships
  - 2 in NYS
  - Texas
  - Georgia
1953 vs. 2015
Mapleview Dairy, LLC

- 2600 cows
- 4800 crop acres
- 40 full time employees
- Family owned and operated
- Agrimark – Cabot & McCadam
NY Agriculture

- Close to population centers
- Water comes from the sky
- Plentiful productive land
- Proximity to undergraduate and graduate programs for Agriculture
- Infrastructure
- Aging farmer population
Future

• Education & experience learning opportunities will be critical

• Staffing

• Capital management

• Public Relations
Thank you
Definitions

• **SENIOR FARMER**: >65.
  30% of NY principal farm operators are senior farmers, and only 8% have an identified successor working alongside them.

• **YOUNG FARMER**: <45
  17% of NY principal farm operators are young.

• **BEGINNING FARMER**: <10 years farm management experience
  21% of NY farms are operated by beginning farmers. In our experience, most beginning farmers are NOT from farm backgrounds.
Why Does it Matter?

Since 2002, the number of senior farmers has grown, while the number of young farmers has declined by 30%.

92% of these senior farmers do not have a young farmer working with them.

1.7 million acres of farmland is at stake
21% of NY farms are operated by beginning farmers, but 55% of these beginners are not young (\(>45\) years).

We need more young farmers to keep land in farming long-term.
Challenges

• **Young beginning** farmers do not have access to land and capital.

• **Older beginning** farmers often have more financial resources, but are lacking in training and farm experience

• **Senior farmers** suffer from a "Commodity Disconnect" - generational difference in what's being grown by young farmers vs senior farmers.

• **Senior farmers** also struggle to find successors with skill, desire, and money to take over their farm.
Basic foundation of information sources for farmers: publications, videos, websites, social media. Twice-monthly newsletter goes to a growing list of over 10,000 people.

smallfarms.cornell.edu
Basic farm business planning tools and information:
- Interactive worksheets
- Business Plan templates and enterprise budgets
- One-stop source for events, contacts, regulatory, marketing, production, financial and other farming info

nebeginningfarmers.org
Online Farmer Training

BF 101: Starting from Square One - Creating a Farm to Match Your Values, Goals, Skills, and Resources

Welcome to BF 101

545 students in 2015-16:
• 49% from NY
• 50% young farmers
• 88% were beginning farmers
• Nearly 10% military veterans to whom we offered free courses.

286 students in 2014-2015

One year later, these students had invested more than $1.7mil in their farms, and 74 new farmers got their start in these online courses.
• Small and beginning farmer contact in every Cornell Cooperative Extension office.

• Beginning Farmer Learning Network
Special Programs

• New Farmer Profit Teams
• Dairy Grazing Apprenticeship
• Advanced New Farmer Trainings
• Veterans Entering Agriculture
Farmer-Veteran Support

- DOL-approved On-the-Job Training at pilot farm sites
- Intensive Armed to Farm 5-day business training
- Hands-on trainings
- Networking farmers and service providers
Reference

Keeping Farmers on the Land: New Research Underscores the Need to Address Farm Transition in NY, published by American Farmland Trust and Land For Good, April 2016.

https://www.farmland.org/initiatives/hudson-valley-farmlink-network
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