DGA: First In The Nation

NATIONAL STANDARDS FOR TRAINING IN MANAGED GRAZING DAIRY PRODUCTION

- Guided work experience
- Related instruction
- Facilitated peer group
- Industry networking
- Pathway to farm ownership
Employee Development

A Proven Educational Model

Formal Apprenticeship: 4000 hours over two years

- 3718 hours of on-farm employment and training based on DGA Training Guidelines
- 288 hours of related instruction
  - Herd Health
  - Milk Quality
  - Dairy Nutrition
  - Pasture Management
  - Farm Financial Management
  - Holistic Management
  - Peer Discussion Groups
- Business planning services
Training Guidelines

TABLE OF CONTENTS

1. General Information
   1. Purpose
   2. Important Instructions for the Trainer
   3. Important Instructions for the Apprentice

2. Major Work Categories
   1. Animal Care and Management
     1. Milking
     2. Feeding and Watering
     3. Health and Wellness
   2. Grazing
     1. Grazing and Pasture Management
     2. Grazing and Pasture Maintenance
   3. Dairy Production
     1. Milking
     2. Processing
     3. Storage
   4. Marketing
     1. Marketing Policy
     2. Price Setting
     3. Distribution
   5. Management
     1. Financial Management
     2. Environmental Management
     3. Human Resource Management
   6. Infrastructure
     1. Building and Equipment
     2. Utilities
     3. Storage and Transportation

3. Resources
   1. Farm Management Software
   2. Dairy Production Guides
   3. Animal Health Guides
   4. Market Information
   5. Environmental Regulations

4. Appendices
   1. Appendix A: glossary
   2. Appendix B: sample forms
   3. Appendix C: references

Training Guidelines

MAJOR WORK CATEGORIES

1. MANAGING CATTLE APPROPRIATELY
   (EXCEPT FOR DEER, GoATS, OXES AND MAX (DOWS))

<table>
<thead>
<tr>
<th>Objective</th>
<th>Methodology</th>
<th>Applicable</th>
<th>Applicable</th>
<th>Date Completed</th>
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<tbody>
<tr>
<td>Learn how to handle and move cattle in a humane and efficient manner.</td>
<td>Direct observation of farm practices</td>
<td>Yes</td>
<td>Yes</td>
<td>8/11/2018</td>
</tr>
<tr>
<td>Practice safe and effective handling of cattle</td>
<td>Direct observation of farm practices</td>
<td>Yes</td>
<td>Yes</td>
<td>8/11/2018</td>
</tr>
<tr>
<td>Learn how to administer veterinary care to cattle</td>
<td>Direct observation of farm practices</td>
<td>Yes</td>
<td>Yes</td>
<td>8/11/2018</td>
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<tr>
<td>Learn how to maintain a clean and well-organized barn</td>
<td>Direct observation of farm practices</td>
<td>Yes</td>
<td>Yes</td>
<td>8/11/2018</td>
</tr>
<tr>
<td>Learn how to maintain a clean and well-organized milking facility</td>
<td>Direct observation of farm practices</td>
<td>Yes</td>
<td>Yes</td>
<td>8/11/2018</td>
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<tr>
<td>Learn how to maintain a clean and well-organized dairy facility</td>
<td>Direct observation of farm practices</td>
<td>Yes</td>
<td>Yes</td>
<td>8/11/2018</td>
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<td>Learn how to maintain a clean and well-organized storage facility</td>
<td>Direct observation of farm practices</td>
<td>Yes</td>
<td>Yes</td>
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Training Guidelines

Website/Database

YOUR FUTURE IS THE FUTURE OF DAIRY

Apprenticeship

Apprenticeship is a structured system of training designed to prepare individuals for skilled occupations by combining on-the-job training with related instruction. Apprentices earn while they learn and their skills are nationally recognized.

For 100 years, skilled trades have used Apprenticeship to train certified skilled workers and ensure their standard of training.
Staff Map

Staff Dashboard
Options for Farm Transfer/ Investment

• *Average age of dairy farmers in U.S. is 59 years old. What are their options for farm transfer?*

• **What are options for mid-career farmers seeking opportunities to expand and/or invest?**

  ➢ Milk-share Partnership
  ➢ Spin-off Farm
  ➢ Transition of Ownership

Apprentice Outcomes

➢ Acquired skills, knowledge, and experience to own and operate a managed-grazing dairy

➢ Networked with dairy industry and local professionals

➢ Access to opportunities to:
  ▪ Earn equity in cattle
  ▪ Enter into a business partnership
  ▪ Purchase a start-up farm
  ▪ Transition into ownership
  ▪ Manage a grazing-based dairy

➢ * DGA is an FSA educational provider
Master Outcomes

- Employees who are highly skilled, competent, and trustworthy
- Managers for current dairy grazing operation and/or investment farm
- Financial models and support to help meet career goals, including retirement or exiting industry

Current Status of DGA

- 43 active Master-Apprentice pairs, 16 Journey Dairy Graziers, and more than 200 Apprentice Candidates seeking to be hired.
- Training manual, guidebooks, outreach materials.
- Website with online applications and searchable database to facilitate Master-Apprentice matches.
- Relationships with private investors.
- 501(c)3 Non-Profit Status.
Administrative Partners

- Cornell University Small Farms Program and SUNY Extension
- University of Missouri Extension
- Pennsylvania Association for Sustainable Agriculture (PASA)
- Wolfe’s Neck Farm and University of Maine Extension

Projected Cumulative Outcomes

<table>
<thead>
<tr>
<th>DGA Accomplishments</th>
<th>Prior to 2018</th>
<th>2018¹</th>
<th>2019¹</th>
<th>2020¹</th>
<th>5 Years¹</th>
<th>10 Years²</th>
<th>20 Years³</th>
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<tr>
<td>Annual Graduates with Business Plans</td>
<td></td>
<td>16</td>
<td>10</td>
<td>16</td>
<td>26</td>
<td>66</td>
<td>316</td>
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<tr>
<td>Cumulative # of Journey Dairy Graziers</td>
<td></td>
<td>16</td>
<td>26</td>
<td>42</td>
<td>67</td>
<td>133</td>
<td>449</td>
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<tr>
<td>Employed in management roles</td>
<td></td>
<td>7</td>
<td>11</td>
<td>18</td>
<td>29</td>
<td>58</td>
<td>196</td>
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<tr>
<td>Employed/Earning equity</td>
<td></td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>8</td>
<td>28</td>
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<tr>
<td>Engaged in Farm Transfer</td>
<td></td>
<td>5</td>
<td>8</td>
<td>13</td>
<td>21</td>
<td>42</td>
<td>140</td>
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<td>Engaged in Farm Start Up</td>
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<td>2</td>
<td>3</td>
<td>5</td>
<td>8</td>
<td>17</td>
<td>56</td>
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<td>Approved as DGA Master</td>
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<td>2</td>
<td>3</td>
<td>4</td>
<td>8</td>
<td>28</td>
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<td>Takes on own Apprentice</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Training Farm for multiple Apprentices</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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¹estimates are based on 60% growth in Apprentice numbers per year. ²estimates are based on 30% growth in Apprentice numbers per year, ³estimates are based on 10% growth in Apprentice numbers per year.
Environmental and Economic Impacts

Managed grazing dairy systems are the economic engines of communities even as they restore natural resources needed for long term productivity. *Each cow has annual impact of $34,000 in economic activity in local community and, on 1.5 grazing acres, results in 2 ton reduction in soil loss with 8 lbs. reduction in phosphorus run-off per acre each year and a 2.3 to 7.6% increase in total soil carbon.*

<table>
<thead>
<tr>
<th>Farm Type</th>
<th>Number of cows</th>
<th>Acres</th>
<th>Economic impact</th>
<th>Soil Retained</th>
<th>Phosphorus retained</th>
<th>Carbon sequestered</th>
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</thead>
<tbody>
<tr>
<td>Apprentice</td>
<td>100 cows: 150 grazing acres</td>
<td>$136 mil.</td>
<td>12 K tons</td>
<td>96 K lb</td>
<td>6,840 tons</td>
<td></td>
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<tr>
<td>Farm Transfer</td>
<td>100 cows: 150 grazing acres</td>
<td>$148 mil.</td>
<td>13 K tons</td>
<td>104 K lb</td>
<td>7,439 tons</td>
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<tr>
<td>Start up Farm</td>
<td>60 cows: 90 acres</td>
<td>$16 mil.</td>
<td>1.4 K tons</td>
<td>11.5 K lb</td>
<td>821 tons</td>
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<tr>
<td>Management</td>
<td>150 cows: 225 grazing acres</td>
<td>$371 mil.</td>
<td>33 K tons</td>
<td>262 K lb</td>
<td>18.7 K tons</td>
<td></td>
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<tr>
<td>Training Farm</td>
<td>250 cows: 375 grazing acres</td>
<td></td>
<td></td>
<td></td>
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Near Term Impact

Three Year Total

<table>
<thead>
<tr>
<th>Total Number of farmers</th>
<th>Cows</th>
<th>Acres</th>
<th>Economic impact</th>
<th>Soil Retained</th>
<th>Phosphorus retained</th>
<th>Carbon sequestered</th>
</tr>
</thead>
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<tr>
<td>Apprentice</td>
<td>40</td>
<td>4,000</td>
<td>$136 mil.</td>
<td>12 K tons</td>
<td>96 K lb</td>
<td>6,840 tons</td>
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<tr>
<td>Management</td>
<td>29</td>
<td>4,350</td>
<td>$148 mil.</td>
<td>13 K tons</td>
<td>104 K lb</td>
<td>7,439 tons</td>
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<td>Farm Transfer</td>
<td>21</td>
<td>2,100</td>
<td>$71 mil.</td>
<td>6.3 K tons</td>
<td>50 K lb</td>
<td>3,591 tons</td>
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<td>Farm Startup</td>
<td>8</td>
<td>480</td>
<td>$16 mil.</td>
<td>1.4 K tons</td>
<td>11.5 K lb</td>
<td>821 tons</td>
</tr>
<tr>
<td>Total</td>
<td>98</td>
<td>10,930</td>
<td>$371 mil.</td>
<td>33 K tons</td>
<td>262 K lb</td>
<td>18.7 K tons</td>
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Potential Long Term Impacts

Diversity makes the US dairy industry more competitive in global markets and more resilient to economic and climatic changes.
Partnership Opportunities

- Federal Departments/ Agencies
- Universities and Extension
- Veterans Organizations
- Private Investors
- Dairy/ Grazing Industry
- State and Local Governments
- Consumer Groups
- Public/ Private Schools
- Land and Conservation Trusts
- Rural Economic Development
- Community Foundations
- Environmental Organizations

Skilled People are the Key
<table>
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<tr>
<th>Name</th>
<th>Title</th>
<th>Phone</th>
<th>Email</th>
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<tbody>
<tr>
<td>Joseph Tomandl, III</td>
<td>Executive Director</td>
<td>715-560-0389</td>
<td><a href="mailto:joe@dga-national.org">joe@dga-national.org</a></td>
</tr>
<tr>
<td>Laura Paine</td>
<td>Program Director</td>
<td>608-338-9039</td>
<td><a href="mailto:laura@dga-national.org">laura@dga-national.org</a></td>
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