



MONTGOMERY COUNTY'S

*Eat Local*

**MONTCO**

LOCAL FOOD PROMOTION STRATEGY



MARCH 2018



# *Today's Agenda*

- **Eat Local Montco: An Introduction**
- **Agricultural in Montgomery County**
- **Existing Local Food Promotion Programs**
- **Challenges and Opportunities**
- **Recommendations**
- **Concluding Thoughts**





# *Eat Local Montco*

An Introduction



## WHY EAT LOCAL MONTCO?

- Support Montgomery County farms and food producers through market-based approaches
- Maintain Montgomery County's agricultural heritage and way of life
- Grow the local economy

*Source: Montgomery County Planning  
Commission*







# *Stakeholder-based Planning Process*

- **29 Key Stakeholder Interviews:**
  - Food System Partners
  - Farmers
  - Retailers
  - Restaurant Owners
  - Distributors
  - Manufacturers
  - Farmers' Market Managers
  - Institutions
- **Interested Citizen Online Survey**
  - Distributed online via:
    - MCPC website
    - DVRPC website
    - Social media
    - Interviewees' networks
  - 122 responses



# *Agriculture in Montgomery County*

## Key Takeaways

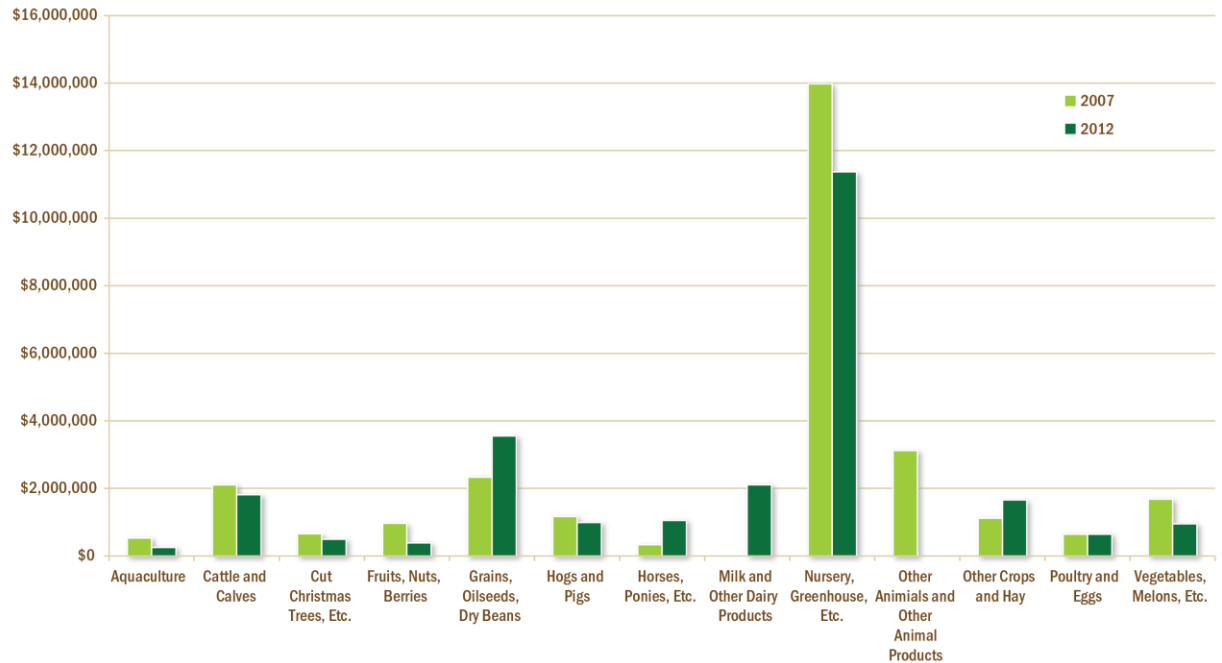


# Key Takeaways

- Most of Montgomery County's farms are small family farms.
- Montgomery County is losing farms and farmland.
- Nursery, greenhouse, and floriculture products are Montgomery County's top agricultural commodities.
- Over 25 percent of Montgomery County farms raise bees, horses, or rabbits.
- Over half of Montgomery County farmers consider farming to be their primary occupation.
- Montgomery County farmers aren't making a lot of money from their farms.
- Montgomery County farms, in aggregate, are losing money.
- Direct sales are a very small part of overall farm sales.
- Agritourism and recreational services are the fastest growing sources of income.
- 30 percent of agricultural lands are permanently preserved.

## NURSERY, GREENHOUSE, AND FLORICULTURE PRODUCTS ARE MONTGOMERY COUNTY'S TOP AGRICULTURAL COMMODITIES

- Nursery, greenhouse, and floriculture products (45%);
- Grains, oilseeds, dry beans, and dry peas (14%);
- Milk and other dairy products (8%);
- Cattle and calves (7%); and
- Other crops and hay (7%).



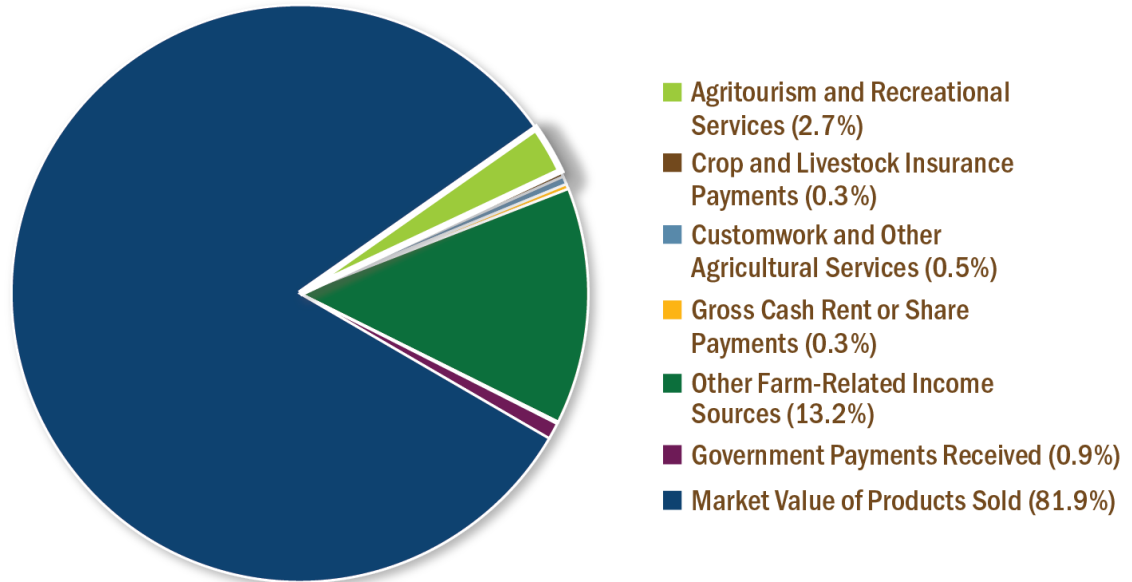
Source: USDA 2012, 2007



## AGRITOURISM AND RECREATIONAL SERVICES ARE THE FASTEST GROWING SOURCES OF INCOME

- Income from agritourism increased 1,335% between 2007 and 2012
- Accounts for 2.7% of gross income
- Accounts for 15.9% of all *farm-related sources* of income

Agritourism as a Percent of Income, 2012

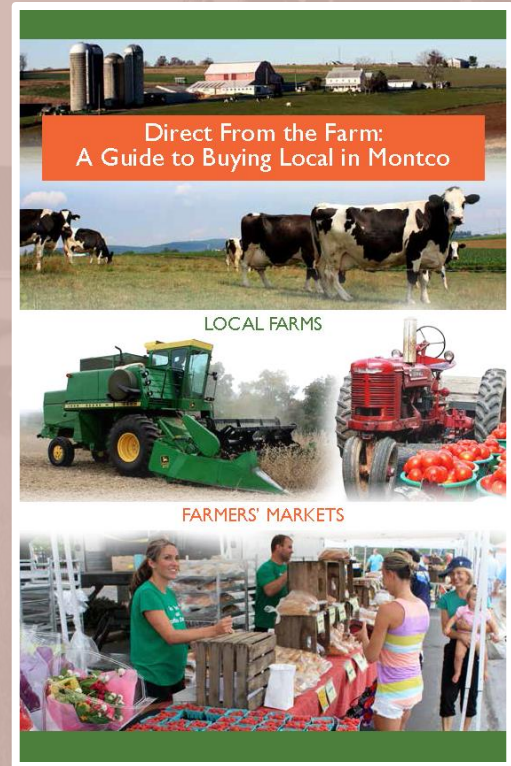


Source: USDA 2012, 2007

Gross Income

# Local Food Promotion Programs

- Buy Fresh Buy Local<sup>®</sup>
- Pennsylvania CSA Guide
- PA Preferred
- Direct from the Farm: A Guide to Buying Local in Montgomery County
- Crave Montco



Source: Montgomery County  
Planning Commission



# Challenges & Opportunities

## Challenges

- Lack of identity as an agricultural community
- Regulations
- Lack of distribution networks
- Lack of processing facilities
- Lack of access to affordable farmland

## Opportunities

- Increased consumer demand and awareness of local food
- Location, location, location
- Increase in intermediate distribution channels



# *Recommendations*



## The Highlights







# *Support a Vision for Local Food Procurement*

- Encourage Local Food Procurement
- Support Local Nurseries that Grow Native Plants
- Create a County Food Policy Council



# *Support a Vision for Local Food Procurement*

- **Encourage Local Food Procurement**
- **Support Local Nurseries that Grow Native Plants**
- **Create a County Food Policy Council**

## ENCOURAGE LOCAL FOOD PROCUREMENT

- Develop a Targeted Percentage of Local Food Purchases
- Issue a Resolution in Support of Local Food Purchasing
- Change County Departmental Procedures

# In Season in August

**10%**  
BUILDING NORTH  
CAROLINA'S LOCAL  
FOOD ECONOMY  
nc10percent.com  
*Table to Fork*



Apples    Brussel Sprouts    Butter Beans    Cantaloupe    Carrots    Corn    Cucumbers    Eggplant    Field Peas    Figs



Garlic    Grapes    Green Beans    Green Peppers    Honeydew    Hot Peppers    Kohlrabi    Leafy Greens    Okra    Peaches



Peanuts    Pears    Plums    Raspberries    Rutabaga    Spring Onions    Squash    Sweet Potatoes    Tomatoes    Watermelon

Source: NC 10% Campaign



This material is based upon work that is supported by the National Institute of Food and Agriculture, United States Department of Agriculture, under award no. 2016-68006-24740. Any opinions, findings, recommendations, or conclusions expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture.



# *Coordinate Supply Chain Efforts*

- **Convene Food System Stakeholders**
- **Support Farm to Institution within Montgomery County**



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## CONVENE FOOD SYSTEM STAKEHOLDERS

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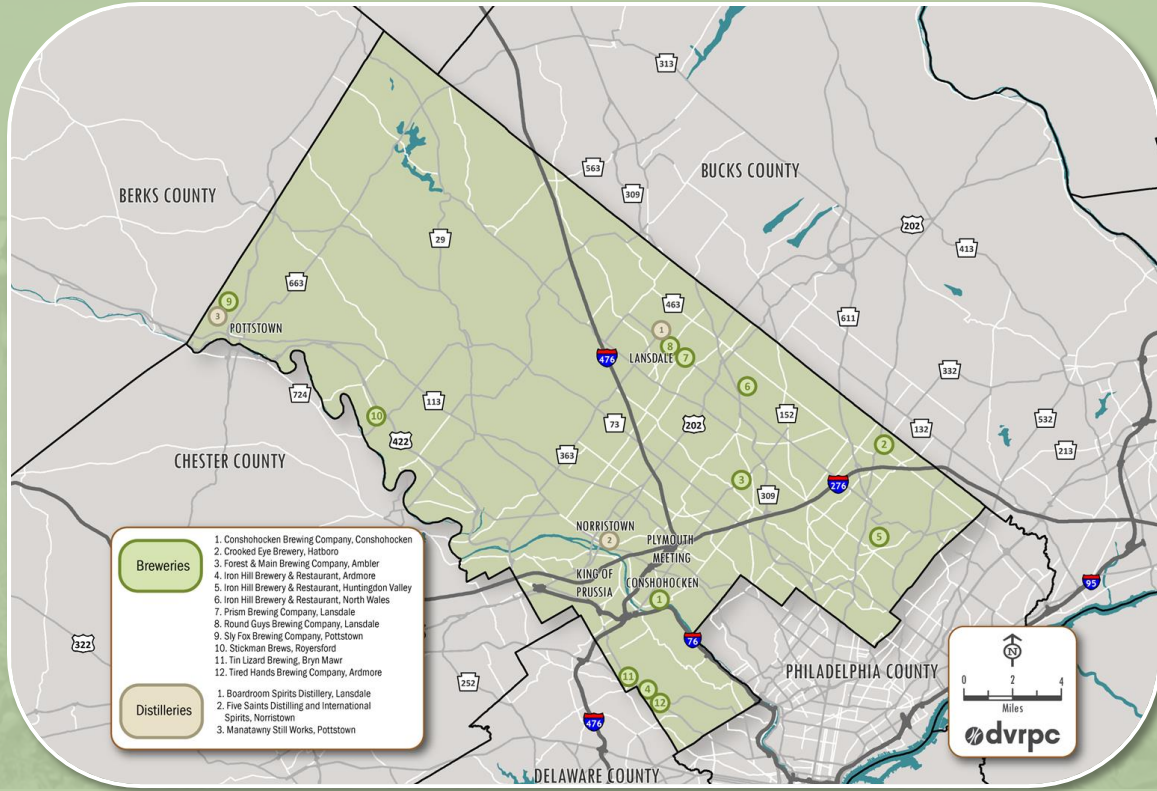
- Grower-Buyer Events
- Meet & Greet with Common Market
- Annual Farmers' Market Manager meeting/networking



*Maryland Grower-Buyer Event  
Source: Maryland's Best Agriculture*



# Tap into the Growing Craft Beer Scene



# *Tap into the Growing Craft Beer Scene*

- Draw on Fair Food's Value Chain Efforts
- Support Farmers Growing Malting Barley and Hops
- Develop a Montco Local Ale Trail



# *Tap into the Growing Craft Beer Scene*

- Draw on Fair Food's Value Chain Efforts
- **Support Farmers Growing Malting Barley and Hops**
- Develop a Montco Local Ale Trail





## **SUPPORT FARMERS GROWING MALTING BARLEY AND HOPS**

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- Conduct a market analysis of growing malting barley and hop in Montgomery County
- Support additional agricultural research and technical assistance around malting barley and hops



*Hops at Two Particular Acres*

*Source: Montgomery County Planning Commission*



# *Expand Local Food Promotion Efforts*

- **Leverage Existing Promotional Programs**
- **Buy Local Challenge/Buy Local Week**
- **Implement a Montco Food Bucks Program**
- **Recognize Local Food System Partners**



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- **Leverage Existing Promotional Programs**
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## BUY LOCAL CHALLENGE

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I pledge to eat at least one thing  
from a Maryland farm every day  
during Buy Local Week!

**10** Anniversary

**Take the  
Buy Local Challenge**

**July 22 - 30, 2017**

*Buy Local Challenge Promotional Materials*

*Source: Maryland Department of Agriculture; Southern Maryland Agricultural Development Commission*



# *Review County and Municipal Policies to Better Support Local Farmers*

- Promote Model Sign Ordinance
- Develop Model Agritourism Zoning
- Continue to Support Farmland Preservation Efforts



# *Review County and Municipal Policies to Better Support Local Farmers*

- **Promote Model Sign Ordinance**
- **Develop Model Agritourism Zoning**
- **Continue to Support Farmland Preservation Efforts**



## PROMOTE MODEL SIGN ORDINANCE

- 62 townships and boroughs with their own regulations
- MCPC should work with municipalities to adopt model sign ordinances to clarify & standardize regulations

*Ambler Farmers' Market Sign*

*Source: Montgomery County Planning Commission*

*Living Hope Farm in Harleysville, PA*

*Source: Living Hope Farm*





*Concluding Thoughts*  
And Next Steps





# *In Conclusion*

- Food system development is economic development.
- There are already resources in place, but there is room for growth.
- The greatest impact that the county can have is by **demonstrating strong leadership** through:
  - **Advocating for policies** that support local farmers; and
  - **Creating a culture** that values local food and the county's agricultural identity.





# *Questions?*

Amy Verbofsky, Senior Planner  
Delaware Valley Regional Planning Commission  
[averbofsky@dvrpc.org](mailto:averbofsky@dvrpc.org)





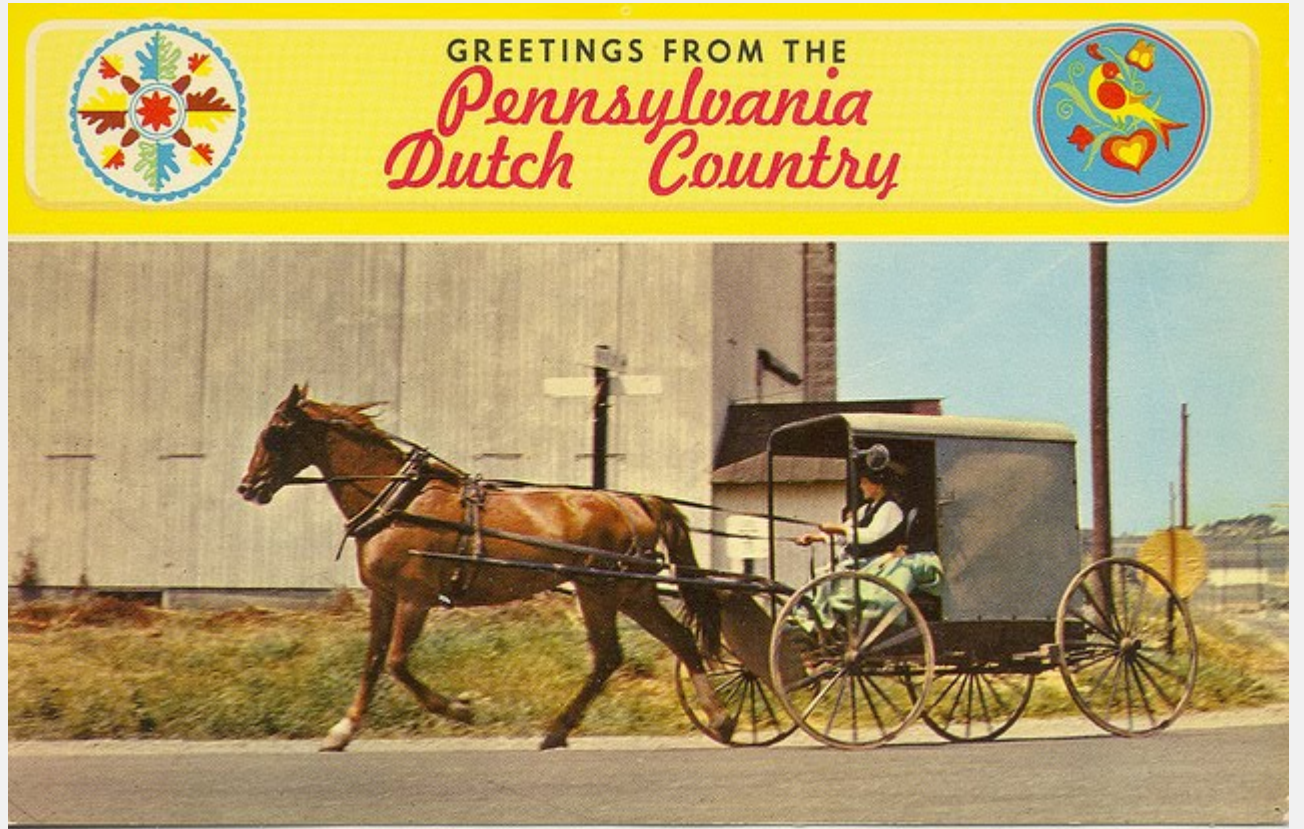
# Challenges and Opportunities in the Local Food Economy

Monday April 30, 2018



# Lancaster County's Agritourism Guidelines and Their Impact



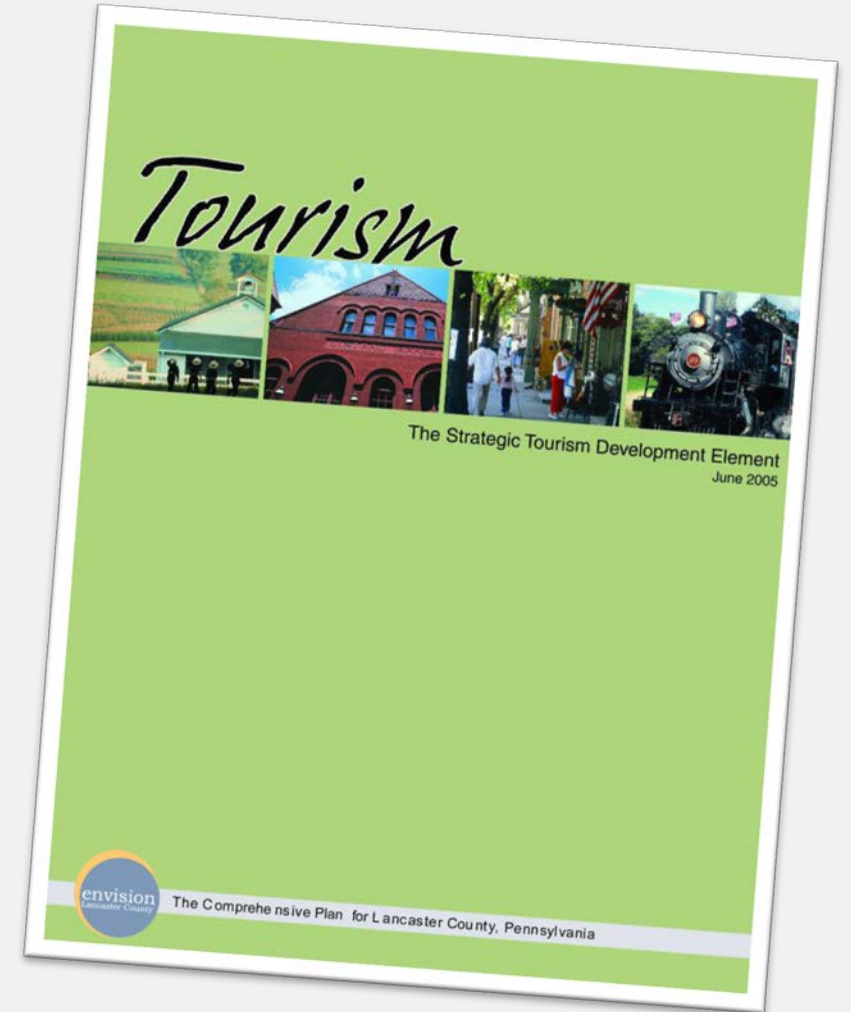






# *Tourism: The Strategic Tourism Development Element*

- Build upon the area's historic commitment to tourism
- Develop new sustainable and authentic tourism products
- Satisfy tourist needs while enhancing the quality of life for local residents



*June 2005*



# *Tourism: The Strategic Tourism Development Element*

## *Goal*

“Protect, preserve, and enhance Lancaster County’s authentic natural, cultural, historic and architectural heritage assets and distinctive “sense of place” as the foundation for future sustainable tourism development and promotion.”

- Authentic
- Distinctive
- Sustainable



# *Benefits of Agri-Tourism*

- enhances economic viability of the farm
- provides on-site employment opportunities
- generates additional income or off-season income for the farmer
- educates residents and visitors about importance of agriculture
- increases awareness of local ag products
- develops a new consumer market niche



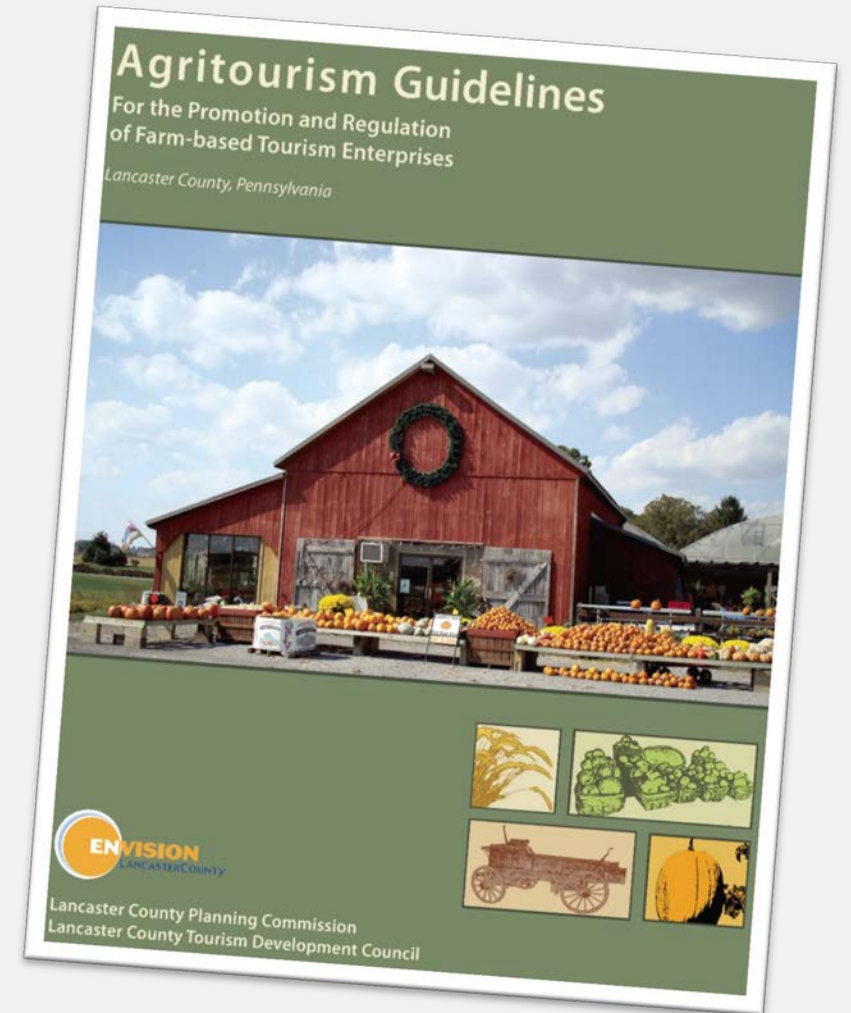
*Country Lane Amish Farm Stay*



# *Agritourism Guidelines for the Promotion and Regulation of Farm-based Tourism Enterprises*

Any tourism experience in the rural and agricultural areas of the County

“...must be directly related to supporting the primary agricultural use of the farm by interpreting the agricultural heritage of the county and providing a distinctly Lancaster County experience.”



*February 2009*



## *Examples of Appropriate Agri-Tourism Enterprises*

### *Christmas Tree Farms and Orchards*



# Examples of Appropriate Agri-Tourism Enterprises



## Farm Stands





# *Examples of Appropriate Agri-Tourism Enterprises*

*Bed & Breakfasts*

*Farm Stays*



**Verdant View  
Farm  
Bed & Breakfast**





# *Examples of Appropriate Agri-Tourism Enterprises*

## *Farm Markets and Events*



# Other Agri-Tourism Examples

## Corn Mazes





## *Other Agri-Tourism Examples*

## *Wedding and Event Venues*





## *Other Agri-Tourism Examples*

### *Wineries*



NISSLEY  
VINEYARDS



## *Other Agri-Tourism Examples*

### *Haunted Hayrides and Haunted Barns*





# *Proposed legislative definition of Agritourism*

*PA Senate Bill 819, 2017 Session (proposed)*

*Defines agritourism in the context of uses permitted on preserved farm as:*

*“Activity ... that provides entertainment or education to the general public for the purpose of promoting agricultural products or farming or rural lifestyles...” regardless of whether a fee is charged.*





# *Proposed legislative definition of Agritourism*

## *PA Senate Bill 819, 2017 Session (proposed)*

*Listed agritourism activities include:*

- 1) Interaction with farm or rural animals*
- 2) Farming or harvesting activities*
- 3) Tours, exhibitions, or taste tests that promote the farm or on-farm produced products*
- 4) Bed and breakfasts that encourage engagement with farming or harvesting activities*
- 5) Equine training, teaching or recreational riding*



# *Proposed legislative definition of Agritourism*

*PA Senate Bill 819, 2017 Session (proposed)*

*Listed agritourism activities include: (cont.)*

- 6) “Games, rides and other entertainment activities normally engaged in by farm families or rural communities”*
- 7) Activities carried out in conjunction with seasonal festivals to promote local agricultural products*

*“The term (agritourism) does not include rodeos, hunting, water skiing or tubing, paintball and nonmotorized freestyle, mountain or off-road bicycling.”*



# *Lancaster County Agricultural Preserve Board (APB) Rural Enterprise Guidelines for Agritourism and Agritainment Enterprises*

*Must be “... incidental to agricultural production, with ongoing agricultural production at all times required on the restricted land.”*

*Furthermore, the Enterprise shall not:*

- 1) render any portion of the land incapable of being immediately converted to agricultural use*
- 2) be located within the curtilage (immediate vicinity) of the existing residential or agricultural structures;*  
*and,*
- 3) propose excavation, paving, graveling, or construction of permanent nonagricultural structures*





# *Lancaster County Agricultural Preserve Board (APB) Rural Enterprise Guidelines for Agritourism and Agritainment Enterprises*

*Appropriate examples include:*

- *Hunting and fishing*
- *Swimming in existing ponds or impoundments*
- *Animal riding*
- *Picnicking and hiking*
- *Operation of nonmotorized vehicles*
- *Corn mazes, farm tours, and hay rides*
- *Bed and breakfasts, wedding receptions, and family dining*



# *Agritourism Guidelines for the Promotion and Regulation of Farm-based Tourism Enterprises*

## Farm Size and General Definitions

- Farm must be an existing and operating working farm
- Agritourism enterprise must be incidental to and directly supportive of the agriculture use of the property
- Permanent farm structures must meet the requirements of other farm businesses
- Operators shall be limited to the farm owner, his/her immediate family, and a set number of employees



# *Agritourism Guidelines for the Promotion and Regulation of Farm-based Tourism Enterprises*

## Visitor Management and Services

- Sketch plan required showing the location and dimensions of all structures, parking areas, driveways, landscaping and other features
- Evidence that sanitary facilities are approved by PaDEP
- Signage and hours of operation consistent with other farm businesses





# *Agritourism Guidelines for the Promotion and Regulation of Farm-based Tourism Enterprises*

## Visitor Management Services (cont.)

- Food and/or beverages provided for sale and/or consumption on the farm must meet all federal, state, and local regulations
- Food and/or beverages should be limited to only those value-added products that are produced from or grown on the farm, unless they are secondary and incidental to the primary agri-tourism business. In all cases the use of locally grown or produced food and/or beverages is encouraged



# *Agritourism Guidelines for the Promotion and Regulation of Farm-based Tourism Enterprises*

## Transportation

- Parking requirements as mandated by zoning ordinance. Avoid requests by applicant to over-supply parking
- Consider requiring a certain percentage of parking to be constructed with pervious paving
- Avoid parking on grass areas or in fields unless it is a one-time special event and no other options are available
- Encourage the use of shuttled, off-site parking





# *Agritourism Guidelines for the Promotion and Regulation of Farm-based Tourism Enterprises*

## Transportation

- No vehicles may be parked on the shoulders or in the rights-of-way of adjacent roadways
- The applicant must demonstrate the ability for vehicles to turn around on the site without having to back on to the roadway.
- Fire police or other traffic management personnel may be required for certain large-scale events. Often these are the one-time, special events.



*Shirk Threshers Festival*



# *Agritourism Guidelines for the Promotion and Regulation of Farm-based Tourism Enterprises*

## Building Codes

- Fire safety- sprinklers, emergency lighting
- ADA accessibility



*Ironstone Ranch*

# *Agritourism Resources*

## **APA's Knowledgebase Collection- Agritourism**

[www.planning.org/knowledgebase/agritourism](http://www.planning.org/knowledgebase/agritourism)

-Background reports, policy guidance, and examples of local plan recommendations

## **Virginia Tech's Cooperative Extension Guide to Agritourism**

[www.ext.vt.edu/agriculture/agritourism](http://www.ext.vt.edu/agriculture/agritourism)

-Articles, presentations, and 2018 Virginia Agritourism Conference Presentations

## **Rutgers New Jersey Agricultural Experiment Station Extension Training for Agritourism Development**

[www.agritourism.rutgers.edu/training](http://www.agritourism.rutgers.edu/training)

-Training modules, videos, and checklists covering marketing, financial management, and safety risk management. Also provides a step-by-step tool for budgeting for a corn maze.

# Dean Severson, AICP

*Director for Community Planning*  
Lancaster County Planning Commission

Phone: 717-299-8333

E-mail: [seversod@co.lancaster.pa.us](mailto:seversod@co.lancaster.pa.us)

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







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METROPOLIS FARMS  
ALWAYS FRESH | ALWAYS LOCAL

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What is an Indoor Farming?









Capable of growing anything















Any Size & Type of Crop

Grapes For Wine  
Coffee Bushes  
Stevia Instead of Sugar  
Pharmaceutical Crops

...and of course Food

## What does Indoor farming mean for the future of agriculture?

The re-emergence of local food on a global scale, because indoor farming eliminates the limitations of poor climate lack of available land and limited resources.

### Better Economics

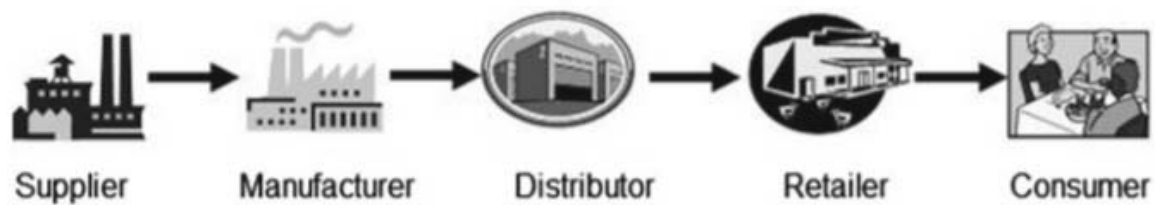
Eliminates Supply Chain Cost and Transfers Those Dollars to Local Profits and Local Better Paying Green Collar Jobs





# The Customer for Food Isn't People

The current system:



## The Public Health Risks

- ▶ According to the CDC, almost 50% of the foodborne illness in the US are caused by leafy greens grown in and around manure.

## National Security

U.S. Vegetable Farming Is Moving To Mexico





## Massive Food Waste

- ▶ 40% of food is wasted in the US every year.
  - ▶ If you're running a business and you toss out 40% of your products, or 40% of your goods are stolen, how is your business doing?
- ▶ Each year in the US, according to the USDA, we throw out *133 billion* pounds of food, worth \$161 billion.
- ▶ These estimates **do not** include food that is wasted in homes, due to produce only having a few days left before it spoils.



## What's Driving The Change

- ▶ Demographics.
- ▶ Economics
- ▶ Technological advancements



## How does vertical farming address these issues?

- ▶ Year round fresh local food, regardless of location.
- ▶ Less food waste because we can create just-in-time agriculture - harvesting and delivering the food the same day. Food no longer has to sit for weeks prior to making it to checkout.
- ▶ Cleaner food and less risk of disease because our farms do not use pesticides, herbicides, or grow produce in manure.
- ▶ **A change In Culture - Communities that are vested in local food because of local "Green Collar Jobs" and Economic Opportunities**



## What will be the unintended consequences?

- ▶ Without proper legislation (regarding maintenance cycles for equipment and cleanliness standards), this could repeat the public health issue.
- ▶ There's going to be a drop in the trucking and logistics industry
- ▶ Food security is a national security issue. By enabling more local food production, we safeguard local populations.
  - ▶ (what will happen if there are no indoor farms and all food production moves south of the border?)







# The future of food

- Local
- Cleaner
- More efficient



# Market Development For PA Craft Malt

Mark Brault  
Owner, Chief Maltster  
Deer Creek Malthouse

DVRPC Economic  
Development Forum  
30-Apr, 2018

# The Opportunity

The brewing industry has evolved rapidly and the malt supply chain for craft brewers has not

- Craft beer needs not the same as large/adjunct beer
- Centralized geographic production
- Poor innovation & customization
- Lack of distinct flavor and aromas
- PA Agriculture, brewing, & tourism disconnected


Malt for craft distilling!

Culinary applications of malt!



# A Solution

*Pennsylvania Craft Malt®*



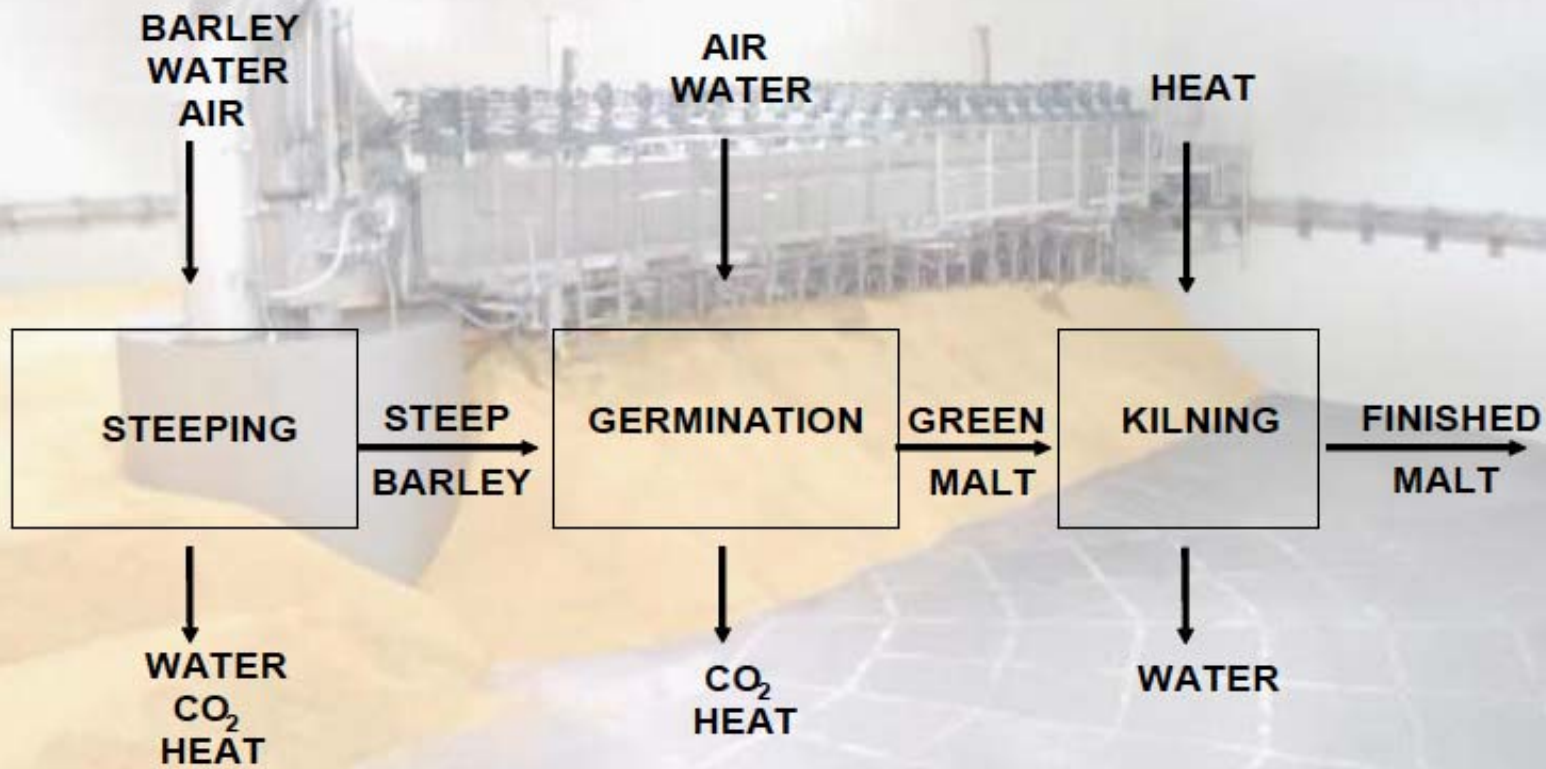
**Deer Creek Malthouse** provides brewers, distillers, and bakers with high-quality, flavorful, malts that deliver authenticity and innovation to the craft food & beverage marketplace.



**No Malt** means **No Beer**

*Water, hops, and yeast alone cannot make a beer!*

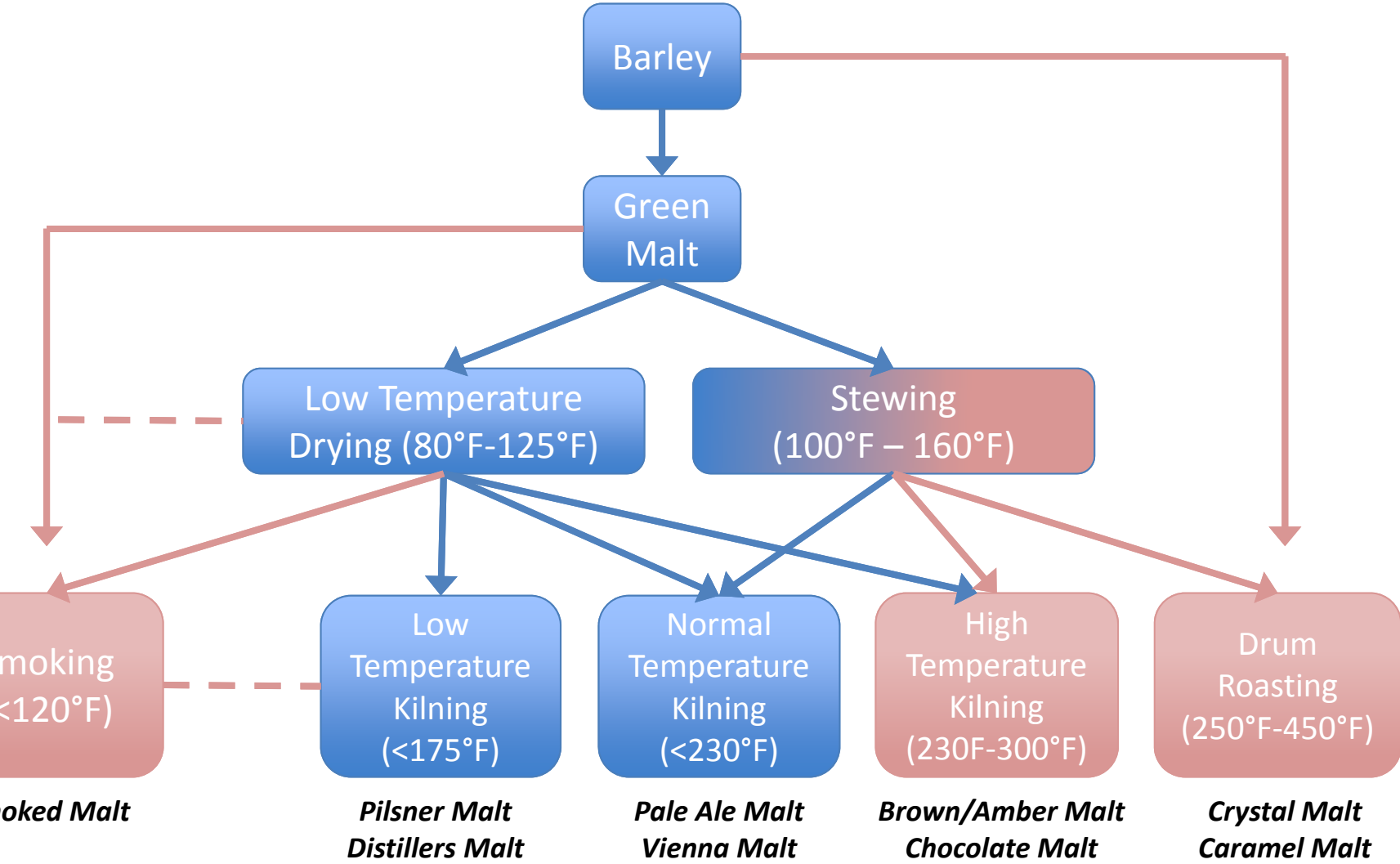
# Malting Process Summary



**An uncomplicated batch process with only a few inputs!  
The only "ingredient" on a malt label is barley!**



# Schematic of Malt Production



# What is Pennsylvania Craft Malt®?

## Quality

- Artisan products meticulously hand-crafted by experienced maltsters

## Flavor

- Characteristics only possible using traditional floor germination techniques



## Local

- Responsibly sourced, sustainably processed in PA, and distributed to the Mid-Atlantic region



# Development Activities

## **Resourcefulness**

- Accomplished a lot with very little
- Chronically undercapitalized

## **Ingenuity**

- Renovated 150 year old barn by hand
- Built custom malting equipment

## **Persistence**

- Low/no living wages for 4 years
- Barn/malthouse sleepovers while kilning for 2 years

## **Research**

- Variety & agronomic trials
- Sensory / flavor

## **Leadership**

- Uniquely skilled to produce craft malt
- Founded first malting operation in PA since prohibition

## **Advocacy**

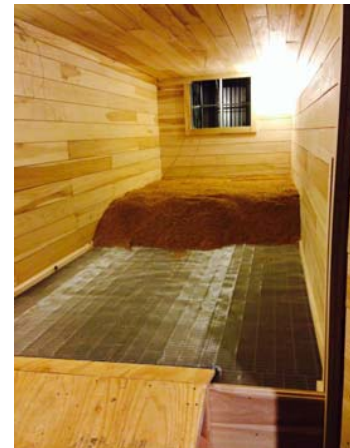
- Professional memberships & lobbying
- Education & events



# BEFORE

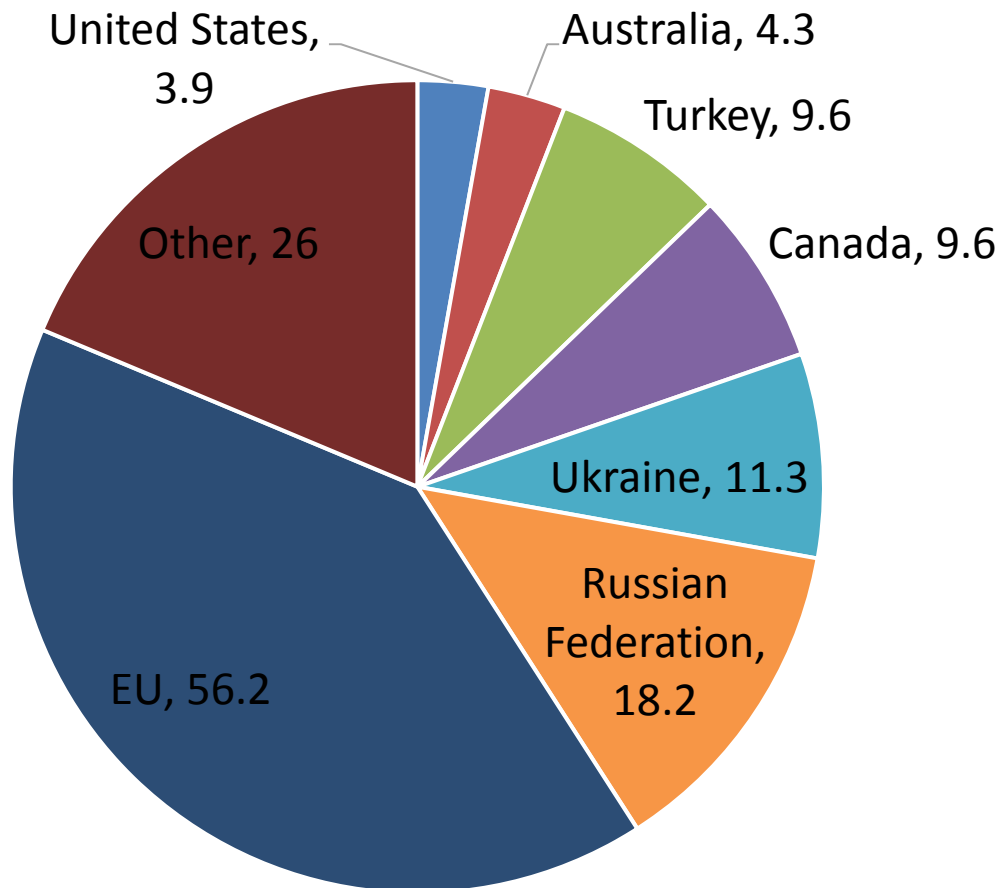


# AFTER



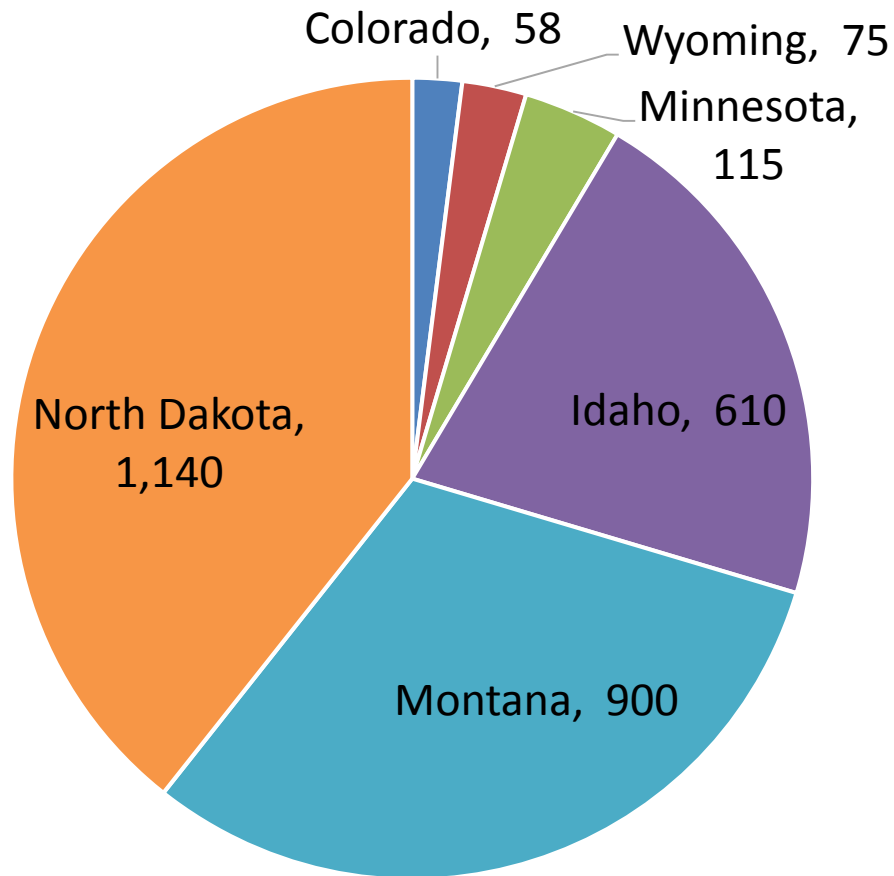
# Malting Barley Countries

Millions of Tons



# Malting Barley States

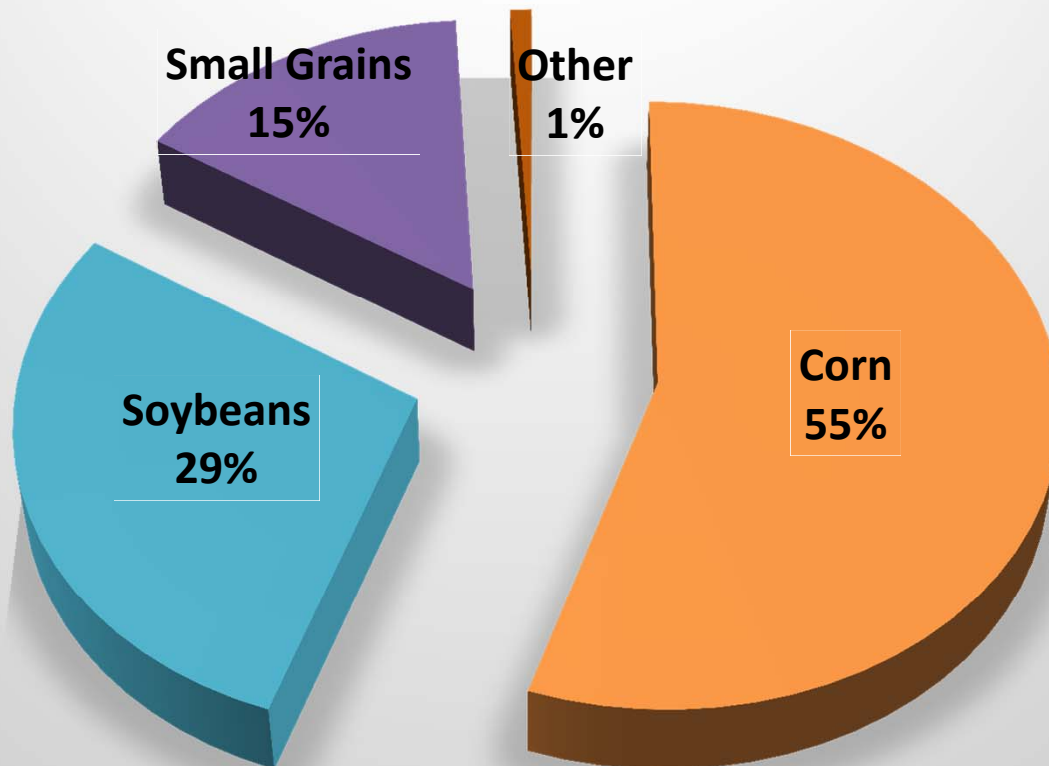
1000s Acres of Malting Barley





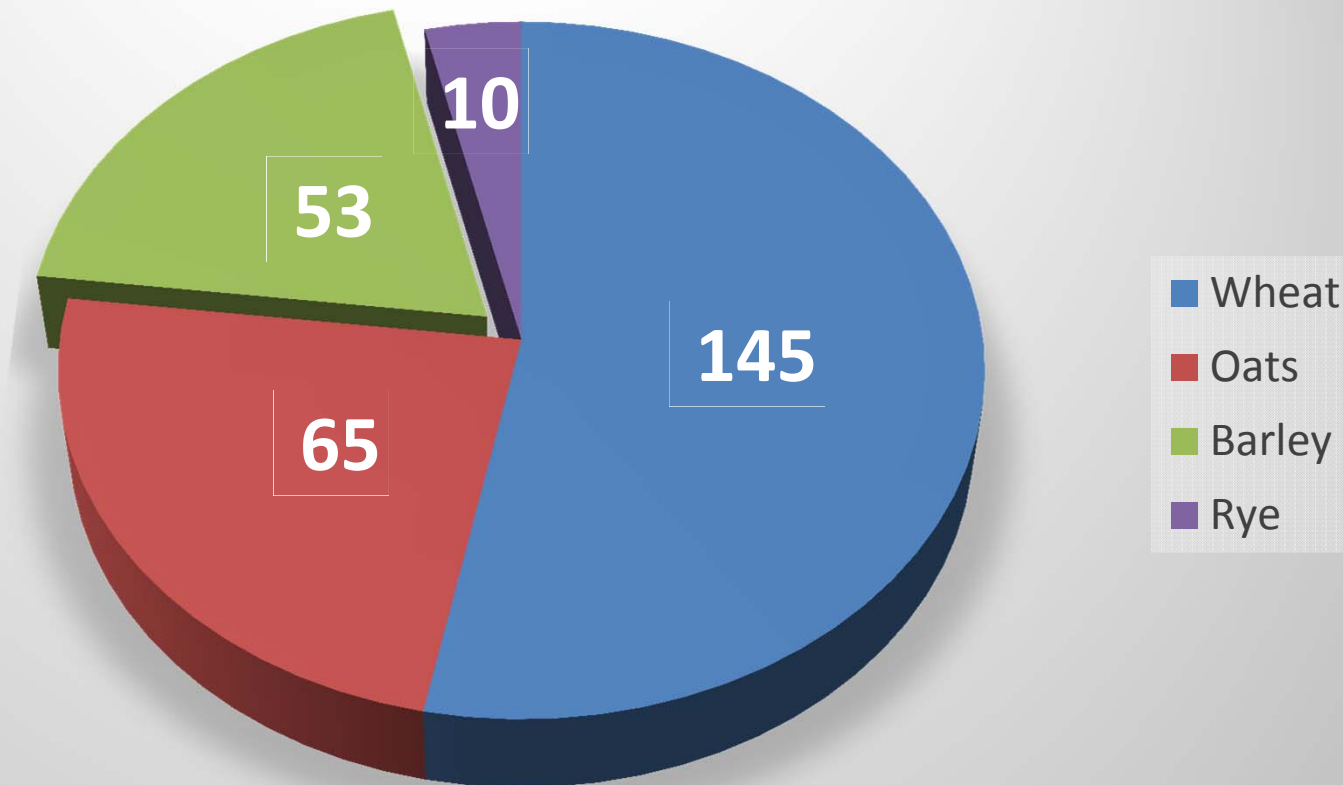
# Pennsylvania Production Data

Pennsylvania Agronomic Crop Acreage



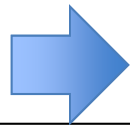
# Pennsylvania Production Data

Small Grains, PA Acres (1000s)

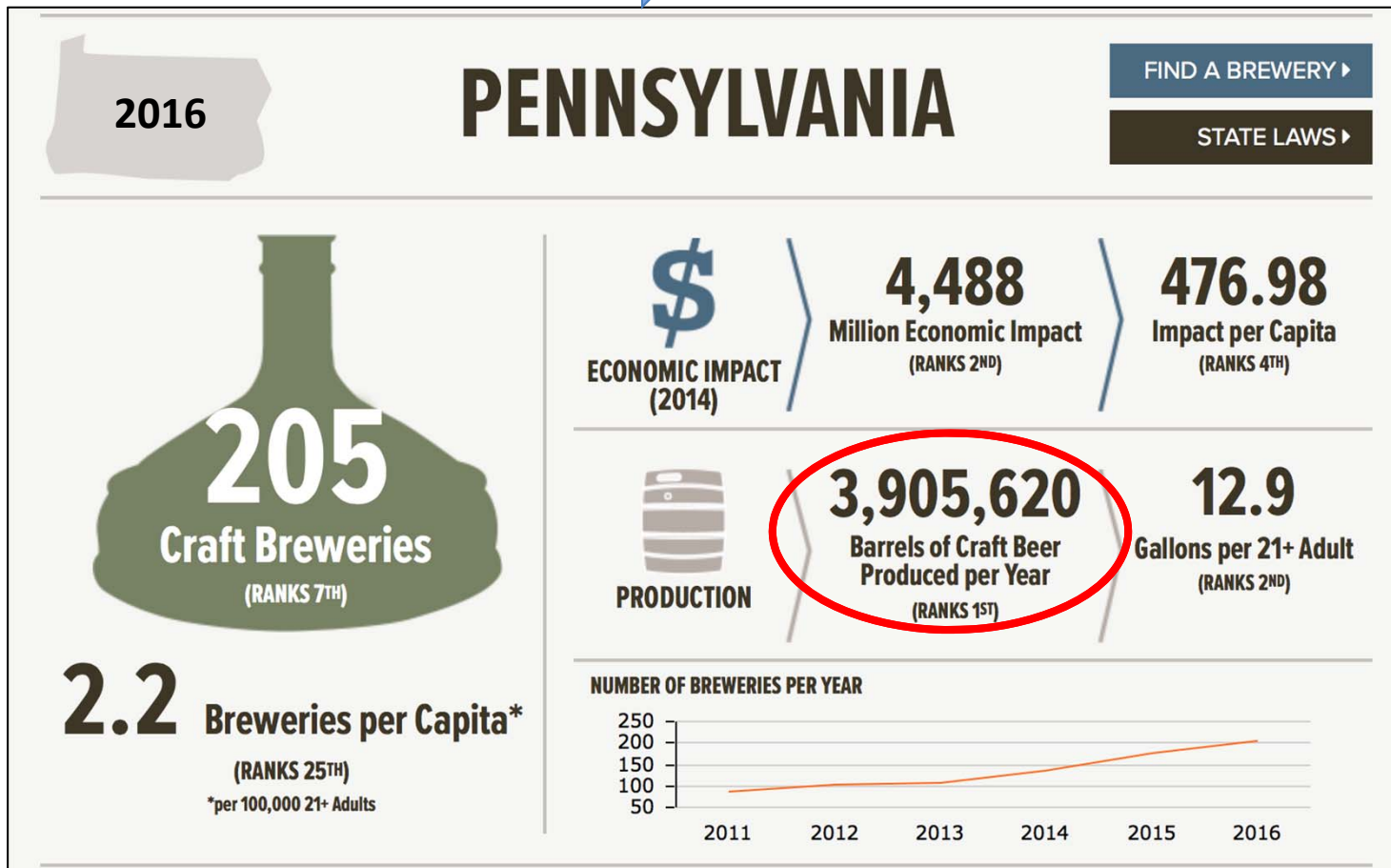


# Pennsylvania Beer by Acres

~4M barrels/yr



~131,000 acres of barley\*



\*70 lbs of malt per barrel of craft beer; 60bu/acre yield malting barley; 80% malt yield; 15% dockage



# Mid-Atlantic Market

## 2016 Brewer's Association Statistics

State	Brewery (#)	Total Economic Impact (\$/yr)	Barrels of Beer (bbl/yr)	~Acres of Barley (ac/yr)	Malt Consumed (T/yr)	Malting Capacity (T/yr)	Market Value* (\$)
PA	205	\$5,778,000,000	3,905,620	131,001	136,697	260	\$519,447,460
DE	19	\$318,000,000	249,733	8,376	8,741	2,500	\$33,214,489
NJ	82	\$1,636,000,000	111,416	3,737	3,900	50	\$14,818,328
MD	65	\$826,000,000	282,593	9,479	9,891	100	\$37,584,869
NY	269	\$3,439,000,000	1,000,785	33,568	35,027	5,000	\$133,104,405
<b>Totals</b>	<b>640</b>	<b>11,997,000,000</b>	<b>5,550,147</b>	<b>186,161</b>	<b>194,255</b>	<b>7,910</b>	<b>\$738,169,551</b>

*based on current Deer Creek average selling price (\$1.90/lb)*

# Traction

Zero discards and every batch of malt sold since Oct 2014

Strong wholesale customer response with reliable organic growth

- 89 breweries
- 12 distilleries
- 18 restaurants / bakeries
- Many home brewers

Established consumer recognized brand and determined product-market fit for PA Craft Malt®

- quality, local, flavor

Wholesale demand has outpaced capacity for >2 years

- 100T in orders for 2018

*(only 60T/yr available capacity)*

# Customer / Brand Snapshot

- **Mad Fritz Brewing Co.**

- Napa, CA
- High end specialty beers



- **Boston Beer Co.**

- Breinigsville, PA
- 2<sup>nd</sup> largest craft brewer in the US
- Recipe development in progress!



- **New Liberty Distillery**

- Philadelphia, PA
- Gold metal whiskey (PA Dutch Malt)
- 3 flagship spirits with PA Craft Malt®

- **Tröegs Brewing Co.**

- Hershey, PA
- Several scratch and splinter cellar packaged beers



- **Lost Bread Co.**

- Philadelphia, PA
- High quality food and influential award winning baker



- **Fork Restaurant / High St. Bakery**

- Philadelphia, PA
- Nearly all bread and pastries



## Shane Confectionary

- Philadelphia, PA
- Chocolate & ice cream with PA Craft Malt®
- Oldest candy shop in US





# Annual Grain & Malt Symposium

PHILADELPHIA  
**GRAIN**  **MALT**  
SYMPOSIUM

MARCH 3RD 2018 | 8:30AM - 6PM  
MCNEIL SCIENCE & TECHNOLOGY CENTER

# Annual Field Day

DEER CREEK MALTHOUSE

MALT-A-PALOOZA

JUNE 16TH | GLEN MILLS PA | 11AM-4PM

SHOWCASING PENNSYLVANIA CRAFT MALT





Agronomy Facts 77

## Malting Barley in Pennsylvania

### HISTORY

Malting barley was introduced to the United States by the Dutch, English, and French during the time of European settlement and became an important crop for both animal feed and its use in the production of beer. Barley production and malt houses were common in colonial Pennsylvania.

Its use in beer production drove malting barley from the East Coast farther west. At one time, malting barley was grown in much of the Corn Belt region; yet, as the prices of corn and soybean rose, malting and feed barley was phased out of production. In Pennsylvania, feed barley production has continued to the present.

Currently, malting barley is predominantly grown in the western United States, Canada, and Europe. In the United States, malting barley is grown from the Dakotas to Washington, with North Dakota having the most acres. With the rapid growth of craft beer production, a demand for locally sourced malted barley has led to the development of malt

houses in Pennsylvania and other states in our region. In some states, such as New York and Maryland, legislation has provided some incentives to use locally produced barley for craft beer. Because of these factors, interest in malting barley production is increasing. In this fact sheet we will review some of the key practices involved in successful malting barley production in Pennsylvania.

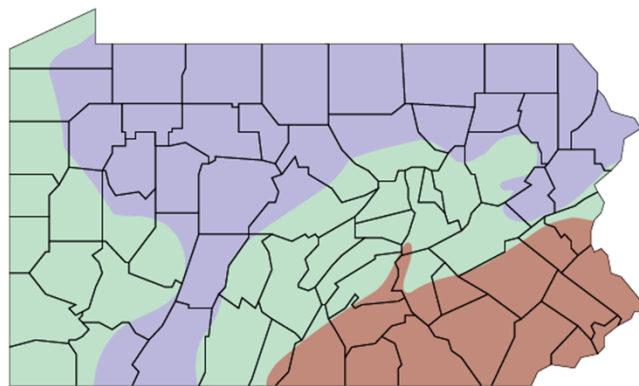
### DESCRIPTION AND ADAPTATION

Barley is a cool-season annual grass and cereal grain that grows best in well-drained soils that have a pH ranging from 6.5 to 7.0. Barley lines are available in both winter and spring types. Spring types are best adapted to shorter-season areas in Area 1 in Figure 1. Winter types are best adapted to the longer season areas in Areas 2 and 3. Barley is less winter hardy than wheat or rye, so timely planting, selection of winter-hardy lines, and good soil fertility management are keys for consistent success.

Malting barley is a specific type of barley that differs from the feed barley commonly grown in the state. Typically, malting barley lines produce higher levels of amylase enzymes, which convert starch to sugars during the brewing process and have lower protein levels.

Malting is a process in which the grain is soaked in water, or “steeped,” and then partially germinated before being dried. During this germination process, the barley seeds release enzymes that break down the starch in the endosperm of the seed to provide nutrition to the developing seedling. When the germination process is suspended, these enzymes are available to be used to convert the starches into sugars in barley and other grains used in the brewing process. The amount of enzymes in the malt is rated using

Figure 1. Small grain management areas in Pennsylvania.



Area 1 Area 2 Area 3





## 2017 Barley and Winter Wheat Performance Trials

Reports for winter barley and wheat performance trials conducted at Penn State in 2017. Data is still being processed and files will be updated periodically.

 ARTICLES



This report provides independent and unbiased information for the evaluation of barley varieties available in Pennsylvania. The small grain evaluation program provides farmers, seed companies and university personnel with information on the

relative performance of barley varieties grown under Pennsylvania conditions. It should be used to supplement other sources of information, such as seed industry performance tests, other independent testing data, and on-farm performance records, when making variety selection decisions.

Winter Barley

# seedway.com

## KWS SCALA

### WINTER MALTING BARLEY

2-row variety, strong plant health and resistance to major barley diseases. Medium height and excellent test weight. **Ranked #1 in quality in 2013-2014 Cornell University trials.** Strong yields. Good winterhardiness. Can be a top producer in many production systems.

## KWS TINKA

### SPRING MALTING BARLEY

2 row barley which was the highest yielding and test weight spring malting barley tested at Cornell in 2016. Excellent disease resistance, a must plant variety.

## ODYSSEY

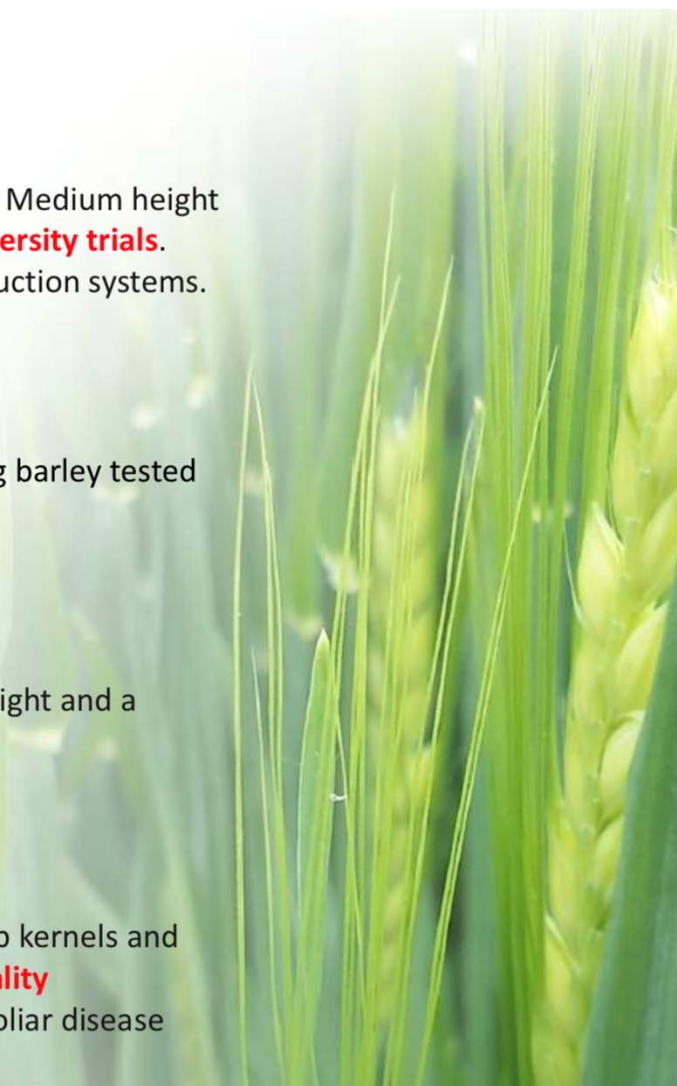
### SPRING MALTING BARLEY

2 row, high yielding with good overall disease resistance. Excellent test weight and a Non GN variety (Glycosidic Nitrile).

## AAC SYNERGY

### SPRING MALTING BARLEY

Widely adapted 2-row Malting Barley. AAC Synergy produces heavy, plump kernels and short, strong straw with good resistance to lodging. **Desirable malting quality profile with higher malt extract.** With a combination of high yield, good foliar disease resistance and excellent malting quality.





***What is a PA Preferred Brew?***

- . Brewed in Pennsylvania;
- . Brewed to meet standards for quality, sanitation, safety and labeling; *and*
- . Produced from Pennsylvania-produced agricultural commodities



# Unanswered Questions

How do we make PA agricultural products more competitive for PA food & beverages?

How do we better connect Agriculture, Tourism & Brewing industries in PA?

How do we create better quantitative guidelines for incentive programs (i.e. PA Preferred Brews)?

How do we use PA Preferred brews program as a spring board for new legislation?

What does a farm brewery, winery, or distillery license look like?

How do we leverage the voice of Breweries to advocate for Ag products used in PA brewed beverages? (Distilleries & Wineries too)

# Specific Challenges

Access to capital

Cost of land / buildings

Waste management

BIG malt outside the commonwealth

Attracting & retaining young talent

Crop / weather risk

Value misalignment

# It takes a Community

THANK YOU to our family, friends, farmers, partners, customers, advisors, officials, legislators...





# What's on Tap?

- Product releases
- Events
- News



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Other questions?



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