



Department of  
**Environment &  
Conservation**



# Tennessee Sustainable Spirits Program

# Sustainable Practices

- **Business Team**

- Get Food Smart TN
- Governor's Environmental Stewardship Awards
- Tennessee Green Star Partnership
- Tennessee Materials Marketplace
- Clean Tennessee Energy Grants
- Tennessee Sustainable Spirits

- **Community Team**

- Tennessee Environmental Education Initiative
- Tennessee Radon Program
- Unwanted Household Pharmaceutical Program
- Tire Environmental Act Program

- **State Government/Institution Team**

- Tennessee Higher Education Initiative
- Sustainable State Government

# Tennessee Sustainable Spirits Overview



Tennessee Sustainable Spirits is a voluntary program that assists wineries and wine growers, breweries, and distilleries in increasing sustainability by promoting best practices, providing technical assistance, and developing relationships.

# Benefits

- Benefits to Membership:
  - Unique Branding
  - Website Recognition
  - Articles
  - Technical Assistance
  - New Member Recognition Event and Press Release
  - Online Resources



# Promotional Items





# Membership

- Membership may be obtained by fulfilling a range of sustainability requirements:
  - Water Conservation
  - Reduced air/water pollution
  - Increased waste reduction
  - Expanded community involvement compared to current industry standards for the spirits industry.

# Application Process

- Submit Application
- Submit Utility Data and Production Data
- Submit Checklist
- OSP Review Application, Data, and Checklist
- TDEC Internal Compliance Check
- On-Site Visit
- Sustainability Report
- Acceptance

# Checklist

RESET



## Sustainable Spirits Member Checklist

APPLICANT NAME:

To be considered a Tennessee Sustainable Spirits facility, the operation must complete 25 of the check boxes from the following lists.

Checklist items are a combination of operational- and facility-specific practices or equipment, some items may not be applicable to your facility. In that case, please make a note so that your membership status is not affected.

TDEC has identified several low- to no-cost sustainability measures that facilities can implement to directly enhance and increase operational sustainability. Since these measures are low cost, with exception of potentially requiring recycling, TDEC has established these measures as prerequisites (\*) for participation in the program.

### Water

Reducing water consumption, protecting water resources, and reusing water can help lower costs, reduce ecological impact, and create a healthier workplace.

- ☐ Low Flow Toilets
- ☐ Groundwater Monitoring (annual testing of water quality, metering, and/or water levels)
- ☐ Faucet Aerators/Sensors
- ☐ Water Reuse (reusing final rinse water for initial rinse on fermenters, reusing heated chill water for preheated water, etc.)
- ☐ **Quarterly Leak Checks\* (documented review of water systems for leaks on at least a quarterly basis)**
  - ☐ Reduced Water Usage Ratio from previous year.
  - ☐ Cooling System Water Recycle (Heat Transfer)
  - ☐ Effluent Meets Water Quality Standards
  - ☐ Rainwater Capture (whether for storm water management or sustainable water sourcing)
- ☐ Storm Water Management
  - ☐ Pervious Pavement
  - ☐ Detention Basin
  - ☐ Spill Kit/Containment System

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- ☐ Storm Water Management Plan
- ☐ Native Landscaping

### Air

Both ambient and indoor air quality can have impacts on the environment and human health. By reducing air emissions within your facility, you are playing a role in improving air quality.

- ☐ CO2 Reuse
- ☐ Scrubbers
- ☐ Combustion Alternative (different from traditional direct fire)
- ☐ Radon Detection/Mitigation
- ☐ Volatile Organic Compound (VOC) Reduction - furniture, paint, flooring, etc.
- ☐ Alternately Powered Equipment
  - ☐ What kind?
- ☐ Reduction in Transportation - Locally Sourcing

### Waste

Sustainably managing materials through minimizing resource consumption, maximizing reuse, adopting diversion strategies and recycling can reduce impacts to land resources and environment.

- ☐ **Recycling\* (any type of landfill diversion effort that has a beneficial use for the materials listed below)**
  - ☐ Glass
  - ☐ Wood
  - ☐ Plastic
  - ☐ Cardboard/Paper
  - ☐ Metal
- ☐ Composting
- ☐ Spent Grain/Pomace Use
- ☐ Alternative Packaging Material
- ☐ Management of Product Not Meeting Specifications
- ☐ Packaging Take back
- ☐ Packaging Reduction
- ☐ Waste reduction, diversion, and/or recycling education

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# Checklist

## Energy

Similar to water conservation, reducing energy consumption and implementing alternative energy sources can reduce utility costs and improve air quality.

- ☐ Alternative Energy
- ☐ Electric Vehicle Charging
- ☐ Completed Energy Audit
- ☐ Energy Star Appliances
- ☐ Efficient Lighting
- ☐ Efficient HVAC (> 15 SEER)
- ☐ Geothermal
- ☐ Efficient Cooling
- ☐ **Occupancy Sensors/Signage\* (sensors designed to shut off lighting when rooms are not in use or signage reminding the importance of turning off the lights)**
- ☐ Efficient Insulation

## Sourcing

Sourcing local ingredients, packaging, materials, and equipment can reduce the amount of greenhouse gases emitted from transportation.

- ☐ 50% Locally Sourced Ingredients – other than water for at least one product
- ☐ 50% Locally Sourced Packaging Material (within 500 miles)

## Community

Conducting community engagement through educational opportunities and/or clean ups to improve the local environment, allows an organization to have a positive social and environmental impact on their surroundings.

- ☐ Outreach – by supporting sustainability in your community by attending and/or participating in events that support and provide education on sustainability topics.
- ☐ Steam clean-ups / roadside or community litter pick up / or other beautification activity
- ☐ Community Garden / composting / beehives
- ☐ Give Back Programs - which give back to the community – either through financial support, volunteering, or other actions that support surrounding areas.
- ☐ **Charitable Contributions\* (any donation of money, goods and services, or time to the community)**
- ☐ Venue Opportunities – providing a free space for community organizations to meet.

## Maintenance

Regularly scheduled and performed maintenance extends operational life and capacity of equipment, therefore reducing emissions associated with operating these various pieces of equipment and reduces lifecycle environmental costs by decreasing the regularity with which these systems need to be replaced. Routine maintenance also helps in identifying fluid leaks from broken equipment sooner.

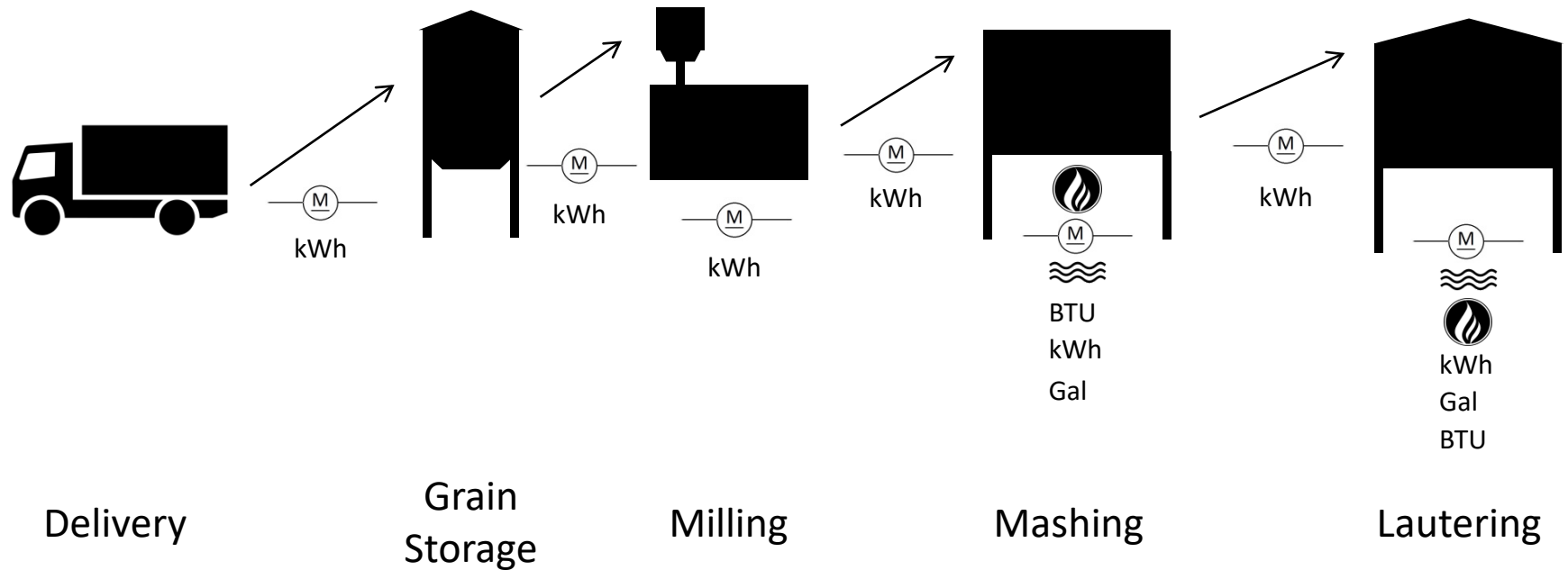
- ☐ Material Handling – Forklift, Pallet Jack...
- ☐ Green Cleaning – Non Production
- ☐ Delivery Vehicles
- ☐ HVAC
- ☐ Steam System
- ☐ Manufacturing/Packaging

Please use this additional space to describe any sustainability projects you are interested in implementing at your facility and would like more information on.

# Next Steps for TNSS

- Increase membership
- Seek additional feedback from members and stakeholders
- Additional resources for members
- Develop value stream mapping program for members
- Summer Internship

# Value Stream Mapping



# Sourcing Local Ingredients for Craft Beverages in Tennessee

Rachel Painter

Value-Added Agriculture Marketing Specialist  
UT Extension, Center for Profitable Agriculture



# Center for Profitable Agriculture



Specialists at the Center assist farmers with evaluating, planning, and developing value-added enterprises

- [cpa.tennessee.edu](http://cpa.tennessee.edu)
- [facebook.com/ValueAddedAg](https://facebook.com/ValueAddedAg)
- [Instagram.com/tnvalueaddedag](https://Instagram.com/tnvalueaddedag)



# What is value-added agriculture?



Processing, packaging, or promoting products or services to earn a greater portion of consumer expenditures







### County Office Locations

Offices are located in all 95 counties across Tennessee



### Educational Programs

Online and in-person opportunities offered



### Extension Publications

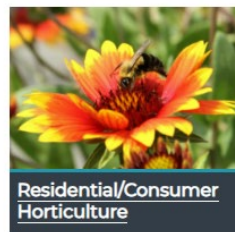
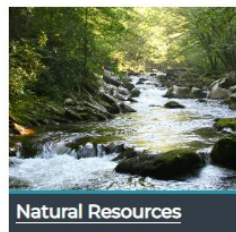
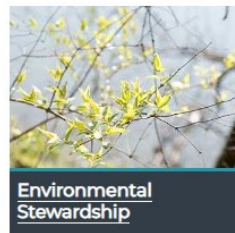
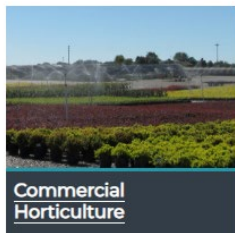
Research based information



### Volunteer Opportunities

Become a Tennessee Extension Volunteer

### Our Focus Areas



# UT Extension

Find your local Extension office  
[utextension.tennessee.edu](http://utextension.tennessee.edu)

# Craft Beverage Work Group

- Rachel Painter- Chair, Extension Specialist, Value-Added Marketing
- Dr. Aaron Smith- Ag & Resource Economics Specialist
- Dr. David Hughes- Ag & Resource Economics Specialist
- Dr. Alicia Rihn - Ag & Resource Economics Specialist
- Dr. Rob Williams- Food Sciences Department Head
- Dr. Mark Morgan- Food Sciences Specialist
- Dr. Tyson Raper – Plant Sciences Specialist
- Ryan Blair – Plant Sciences Specialist
- Dr. Mitchell Richmond –Plant Sciences Specialist
- Bruce Kirksey – Agri-center International
- Mike Brown – TDA
- Carol Reed – TN Corn Growers
- Laura Swanson – TN Farm Winegrowers Alliance
- Charity Toombs– TN Distillers Guild
- Sharon Cheek – TN Craft Brewers Guild



January 8, 2024  
[farmandferment.org](http://farmandferment.org)

# Sourcing Local Ingredients for Craft Beverages in Tennessee

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# Sourcing Local Ingredients

**Consumer demand for locally-produced products increasing across industries**

***Farm to Table movement moving beyond the plate***

**Beer, spirits, and wine utilize many crops that could be sourced locally. Benefits: shorter supply chain and market opportunity – does take communication and planning**

**Currently addressing questions within this industry related to growing and utilizing crop inputs and using byproduct spent grains in feed rations**



# Farm to Tap and Consumer Demand for Local Ingredients

How have you seen consumer demand for locally-produced products increasing?



## Farm to Tap Survey Results



OF CRAFT BREWERS SURVEYED  
INDICATED THAT THEY  
USE TENNESSEE GROWN PRODUCTS  
IN THEIR BEERS



OF CRAFT BREWERS SURVEYED  
INDICATED THAT  
THEIR CUSTOMERS  
WOULD LIKELY SEE VALUE IN HAVING  
TENNESSEE GROWN PRODUCTS  
IN THEIR BEERS



OF CONSUMERS SURVEYED  
INDICATED THAT THEY  
WOULD BE WILLING TO  
PAY SLIGHTLY MORE FOR CRAFT BEER  
IF ITS INGREDIENTS INCLUDED  
TENNESSEE FARM PRODUCTS



OF CONSUMERS SURVEYED  
INDICATED THAT THEY  
FEEL GOOD ABOUT SUPPORTING  
LOCALLY OWNED SMALL BUSINESSES  
THAT PROVIDE JOBS AT CRAFT BREWERIES



# Farmer Opportunities

## Crop Inputs:

- Corn
- Barley
- Hops
- Rye
- Fruits
- Vegetables
- Herbs







# Shared Opportunities

- Anything to share a story
- Seconds – produce that has blemishes or past ripe for immediate consumption
- Community Supported Agriculture (CSA) subscription pick up locations or partnership for marketing efforts or events with beverage operations

# Challenges for Beverage Producers

Many farmers already have an established marketing channel for the quantity currently produced

- Plan for the future
  - Share quantity needed for a batch
  - How does the input need to be processed?
    - Who will do the processing?
    - When will the product change hands?
- Who owns it when? (during transport?)  
Payment terms?



# Challenges for Beverage Producers

How will you market the story?

Is the farmer interested in connecting with customers or not?

Communicate, Communicate, Communicate



# Ideas and Opportunities

## Festivals and Events with local Farms

- Tomato Festival –
- local farm selling tomatoes
- foods with tomatoes included
- drinks that use tomato juice
- ability to purchase tomato-related items from vendors (tea towels, bags, earrings, slicers)
- Recreate with other products – Watermelon Festival, Lavender Festival, etc.





# Ideas and Opportunities

## Picking Party or “harvest crew”

- Crew goes to the farm to document harvesting the inputs for the beverages
- Photos of the farmer teaching the crew about the crop, harvesting alongside the farmer, and then the farmer in the tap room/ assisting with the beverage production



# Ideas and Opportunities- Farmer in the Tasting Room



- Host educational ticketed event
- Farmer teaching about production of a crop with related hands-on activity
- Chef teaching a class with the local ingredient
- Cocktail class with the farmer there for photos



# Getting Started

1. Understand seasonality – what will be in season when? Plan ahead.
2. Build relationships with local farmers and supplies
3. Be Adaptable– sourcing local means embracing variance and be ready to change course if necessary
4. Share your story – document and tell the benefits of sourcing local to customers – help them connect with agriculture and the farmer to trust your product



# Sourcing Local Ingredients

## *Challenge:*

**Today:** Consider inputs you could source locally- try to find farmers that produce those products in your area

**This month:** Reach out to a local farm to discuss cross-marketing opportunities (hosting local event together, promoting each other's events, and/or social media posts)

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# Questions?



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**Office Of Sustainable**  
**Practices**  
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*Tennessee is home to world class whisky, wine, beer, and other fine spirits.*  
*The craft spirit producer's connection to people, land, and resources is a relationship in which sustainability plays a vital role.*