

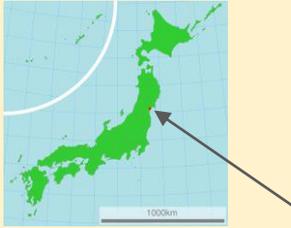


# Growing Rice in New England

Exploring the Promise of  
the Grain That Hardly Any  
New Englander Takes  
Seriously....yet.

# Our Story With Rice

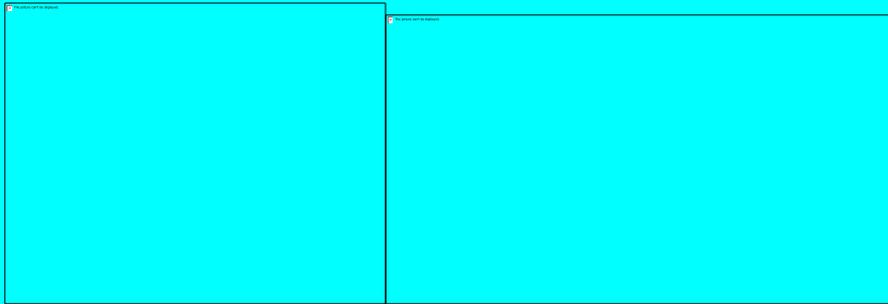
## 1. Seeing Japanese Commercial Rice in Action (1999-2001)



## 2. Trying Wheat and Barley with little Success (2006-2010)



## 3. Building on the Akaogi's research (2010-2015)



## 4. Accessing Expertise and Resources Directly from Japan (2015-Present)



# Our Rice Project and Others in the Region



Maine:  
Wild Folk Farm (1 ac)

Vermont:  
Boundbrook Farm (6 ac)

New York:  
Ever-growing Family  
Farm (1 ac)

New Jersey:  
Blue Moon Acres  
(?? acres, dryland)

Maryland:  
Purple Mt. Organics (1 ac,  
dryland)

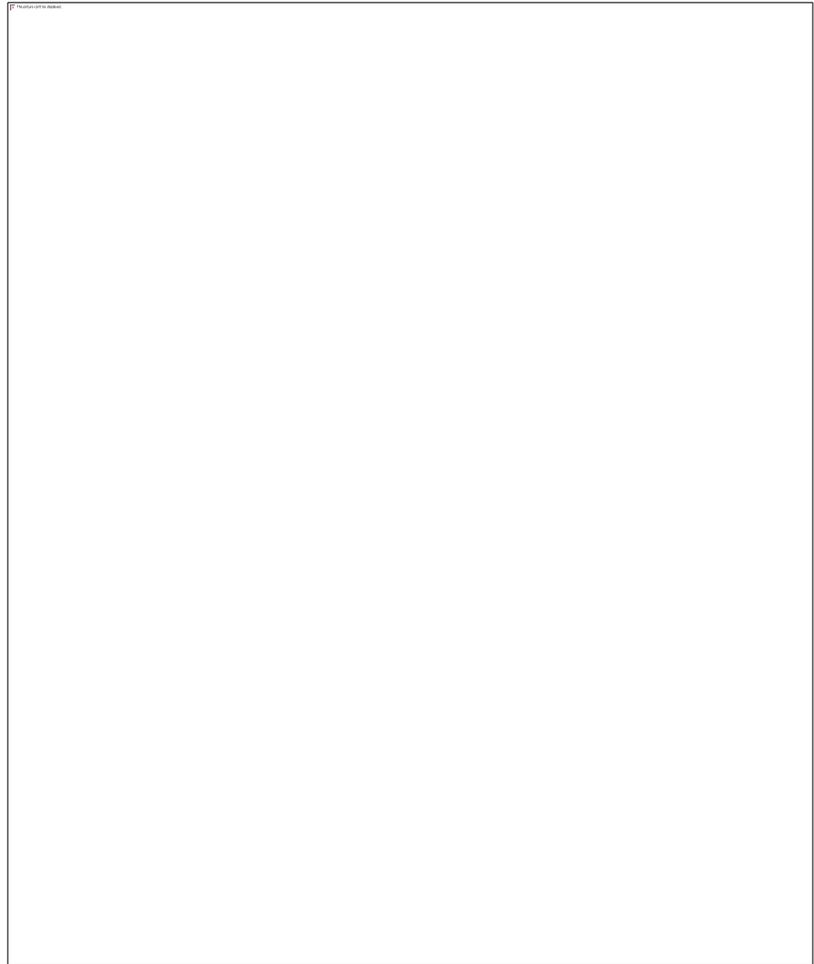
# Paddy Rice

- A wetland model, requires paddies and dikes
- Farmers must be able to manipulate large quantities of water at will
- Water aids greatly in weed suppression
- Most productive/ unit area
- Most Common Worldwide Method
- Unfamiliar in NE USA



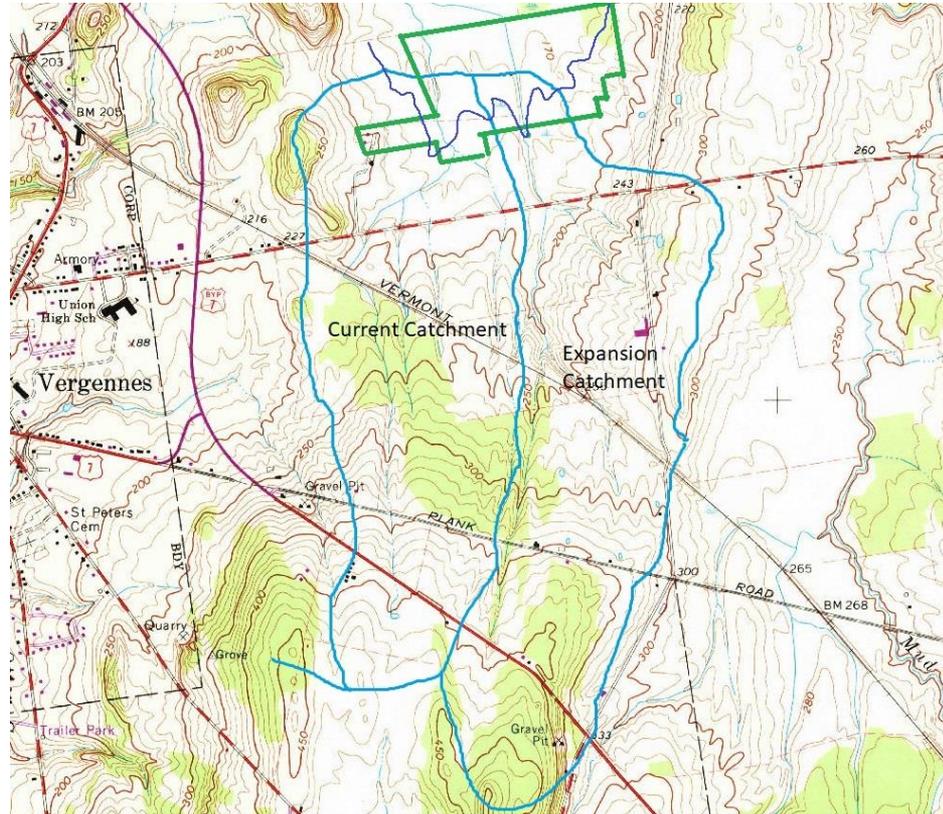
# Dryland Rice

- Usually a row crop
- Rice is very thirsty so some irrigation system still needed
- Weed pressure very strong
- Less productive / unit of area
- More labor intensive
- Style of growing more familiar to NE USA farmers
- Used in Asia only for areas where wet rice is impossible



# What Kind of Land is Best for Paddy Rice?

- Very Flat
- Not sandy, fertile soils
- Ample water and the ability to move it around
  - unlimited flowing water is ideal
  - Stored water is next best
  - Well or municipal water is impractical
- Not a protected wetland area



# What's Needed to be a New England Rice Farmer?

- Some Willingness to Relearn Farming
- Systems Mindset
- Appetite for New Technical Challenges
- Ability to invest and a long view
- Ability to support Labor Needs
  - April Nursery Setup
  - June Transplanting
  - July Crop Establishment
  - October Harvest
- Willingness to Self-market



# Boundbrook Farm Through the Growing Season

## April: Preparing the Nursery

- Rice is sown in transplanting flats
- Roughly 300 sf growing area / acre
- Freezing and overheating must be avoided
- Keep Temps as close to the 65-85 range as possible



Early April -- Soaking seeds

# Mid-April: Planting Flats

- 130-150 Flats / Acre
- Planting machines plant about 100 per hour



# Late April-Early June: Nursery Maintenance

- Nursery needs to stay warm
- Plants need to have their roots wet at all times
- Birds and Rodents kept out
- Occasional Topdressing



# May: Field Preparation

- Careful field tillage is the key!
- Wet tillage is the norm for rice paddies
- Water is added to paddies and tilled to a slurry
- Multiple passes!
- Excess water is drained just before transplanting
- Paddies become easier to level each year



# Early June -- Transplanting

- Plants are 4-6" tall and have 3 leaves
- Rice Transplanters can do about 1 acre per day
- Larger plants=more transplant shock
- Hand Transplanting Takes An Eternity



# June: Getting the Ducks Ready!

- “Aigamo” means Japanese Modern Duck and Rice Farming
- About 100 ducks / acre
- Ducks need supplemental feed and predator protection
- Ducks reduce weeds and pests and do not harm rice
- New ducklings are raised each year





Late June-  
Early August:  
Ducks and  
Rice Together

# Early August - October

- Ahhh!!!
- Not much a farmer can do after this point to affect the outcome
- Drains are opened, grain slowly ripens
- Ducks are removed from paddies and are sold or fattened



# Early October -- Harvest

- We always hope for dry field conditions
- But, rice combines can function in wet fields
- Rice is usually 22-27 % m.c. at harvest
- Drying must keep pace with field harvest



# Postharvest Processing

- Dry Down to 14-15 % m.c. overnight
- Rice can be hulled after drying
- Japanese rice hullers can hull several tons of brown rice per day



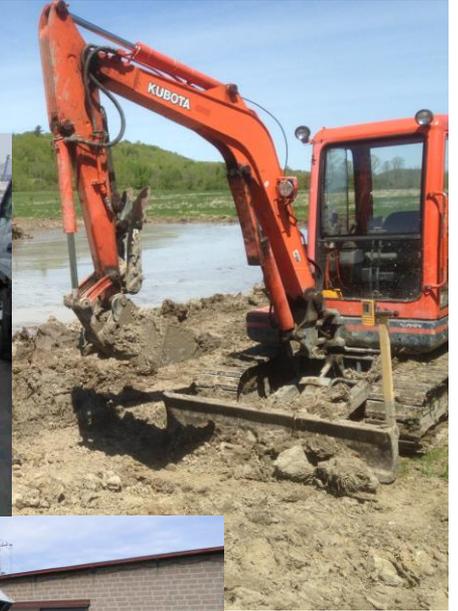
# Storage, Milling and Marketing

- In cool, humid conditions, brown rice retains quality
- White rice is best polished to order
- We spend the winter processing and selling



# Yes, But What Does It Cost?

- \$1000-6000 per acre field costs, one time
- About \$2000 per acre nursery infrastructure costs
- About \$30,000 for a full kit of imported used rice machines and tools for 2-15 acres (not including tractor)
- Annual Operating Costs about \$4000/acre inc. seasonal labor



# What's The Potential?

- Up to 4500 lbs premium brown rice/acre
- Up to \$10 per lb for brown rice
- A largely unmet demand for quality regional rice!
- Make Your “Worst Land” your “Best Land”
- Enhance the Environment in So Doing
- Create Habitat for Wildlife
- Improve Your Watershed by Capturing Nutrients in Local Runoff
- Proactively Adapt to a Shifting Climate

Thank You!

