

*New York Craft Malt & NY State Farmers*

# Together, We Grow Beer!

~ **BASE & SPECIALTY MALTS AVAILABLE** ~



*To request samples,  
including our Crystal  
& Smoked Malts,  
contact us today:*

**Patty @ 585.813.8399  
or email  
[patty@nycraftmalt.com](mailto:patty@nycraftmalt.com)**



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# Malting New York State Grains

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# First Understanding What Malting Is

## MALTING 101 THE LAYMEN'S VERSION

Malting is growing grains to a certain state, then  
stopping its growth with heat

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**There are three steps in malting**

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# Steeping



**Adding moisture to the grain to start the growing/germinating processes.  
Can take up to 48 hours.**

# Germinating



**Germination is growing the grain up to 6 days modifying the grain into green malt. Green Malt then needs to be kiln to finish the malting process.**



# Kilning



**Kilning green malt from 40% moisture to 4% moisture can take up to 30 hours or more**

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# **Essential Steps for Growing Malting Barley and Working with Your Local Malthouse**

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# Step 1

## Before you grow Malting Barley

\* Get the facts \*

\* Do your homework \*

### Literature available:

Cornell Cooperative Extension (CCE)

American Malting Barley Association (AMBA)

Malting Industry Association of Canada (MIAC)

Canadian Malting Barley Technical Centre (CMBTC)

North American Craft Maltsters Guild (NACMG)

# Step 2

## Contact a Malt House

Find a Malt House to purchase your grain

- \* Verbal contract
- \* Document contract

Contract should address the Malt House's guidelines for acceptable grains:

*(Note: Not all Malt House guidelines are the same)*

Some guidelines:

Acceptable DON levels → no more than 1ppm (FDA Recommended)

Germination rate of 95% or better (standard)

Cleaned & Graded

Minimum Plumpness 6/64 or better

Maximum Amount of Thins

Acceptable foreign seeds & other contaminants

No Insects (standard)

Pre-germ / field sprouted issues; RVA testing @ Hartwick College

Minimum/Maximum Protein level

Moisture content

Could be many more Malt House guidelines

## Step 3

### Take growing Malting Barley Seriously “It will pay dividends”

- Decide if you will be planting Winter or Spring Barley
- Work with the Malt House and CCE on what variety of Barley you will be planting
- Line up seed to purchase way ahead of time
- Take soil samples to find out the health of your soil and capability to grow barley
- Add nutrients to soil that will benefit malting barley if needed
- Do not plant after corn or other grains (possible contaminations of smut and volunteer grains)
- Use no more than 60lbs total of Nitrogen per acre (Too much Nitrogen will elevate barley's protein levels)
- If spraying a fungicide, application must go on within 5 days after the first flag leaf

**If you do not have all the equipment necessary to take *full* care of this crop, you may want to reconsider growing it. All areas of growing this grain are time sensitive. Missing 1 day of an application or 1 day harvesting could mean the difference between malting barley or feed barley.**



# Step 4

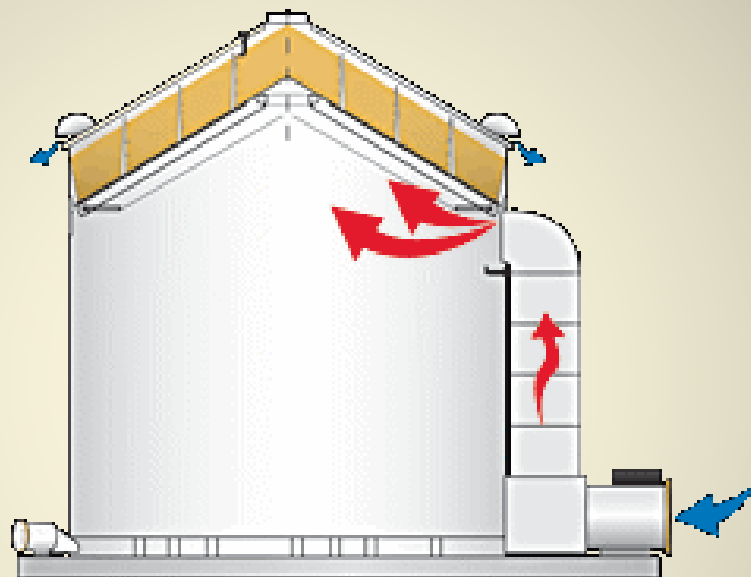
## Harvesting

- \* Malting barley is very susceptible to pre-germination aka pre-sprouting. To help reduce the risk of this an acceptable practice is harvesting between 19 – 22% moisture and then drying.
- \* To help reduce DON levels, a common practice is to not harvest lodged grains where DON levels are normally elevated.
- \* A common practice to help eliminate weed seeds, is to not harvest 10 feet from hedge rows
- \* I would advise to get your barley analyzed straight from the field to get a preliminary assessment of quality. It may save you time and money if it falls short.



## Step 5

### Drying



- \* Drying must be accomplished delicately with little heat (not more than 100 degrees Fahrenheit) and a lot of air flow
- \* Vomitonin will continue to grow in wet grain. Dry as soon as harvested to eliminate elevated DON levels after harvest.
- \* Excessive heat will kill the grains embryo and ability to grow and be malted.



## Step 6

### *Cleaning and Grading*



- \* Clean grain is essential to the quality of the malt and quality of the beer made with that malt  
***Breweries will reject contaminated malt!***
- \* Contamination comes in the form of other grains, beans weed seeds, stones, sticks, bugs, other
- \* Cleaning/shop vac the grain drill, harvester, augers and storage is essential to keeping grain clean.
- \* Careful what you spray for bugs with. Should be FDA acceptable and no retaining residue.



## Step 7

# Barley Storage

Preferred moisture content for long term storage is 12.5%

Monitoring grain temperature, moisture and insects issues, and ability to adjust these key factors during storage will be crucial to quality long term storage.

Most Craft Malt Houses have no capacity to store large amounts of grain. This leaves the grower with the responsibility to store the barley until the malt house needs it. Today's Craft Malt Houses prefer to have their barley delivered in super sacks.





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**You are no longer a commodity grain grower,  
you are a *Seed* grower**

**Malting barley is a high risk grain to grow. It comes  
with high expectations. Attention to every detail is  
needed.**

**If successful, you will reap historic high selling  
prices - Up to 5 times feed pricing.**

**The need to grow NYS Malting Barley is Huge!**

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There are over 250 breweries in NYS making beer and getting their ingredients from all over the world. The next movement in craft beer making is using *local ingredients!*

It's all about the story and the story begins with you. Local farmers, growing local ingredients, for local beer!

## Step 9

Enjoy tasting what you worked so hard for!



Flying Bison – Buffalo, NY



Pearl Street Grill – Buffalo, NY



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