



ASTRO WHITE WHEAT

Two Track Malting is excited to release Astro White Wheat which is a hard white spring wheat developed for malting by Arrow K Farms. Arrow K Farms is based in southwestern North Dakota on the edge of the Badlands in Billings County. Astro White Wheat has a clean sweet malt and sweet bread dough aroma. The flavor embodies sweet wheat and soft bread dough on the tongue with a full-bodied finish.

MALT ANALYSIS

Parameter	Value	Unit
Moisture content	4.7	%
Extract on fine grind dry basis	78.8	%
Extract on coarse grind dry basis	76.6	%
Difference in fine and coarse extract	2.2	%
Colour spectrophotometrical	2.34	°SRM
Total protein content	15.9	%
Soluble protein dry basis	4.13	%
Diastatic power of malt ASBC	114	ASBC DP
Alpha amylase	86	DU
Soluble beta-glucans	80	mg/l
Free amino nitrogen	99	mg/l
DON (Deoxynivalenol or vomitoxin or VOM)	.1	ppm

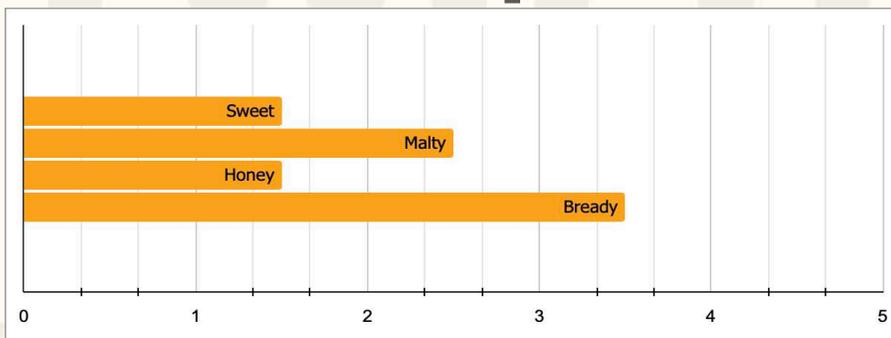


Grain History

AKF-Astro is a hard white spring wheat developed and grown by Arrow K Farms. The Greg & Stacey Kessel family operate Arrow K Farms just a few miles east of Theodore Roosevelt National Park in western North Dakota.

Two Track Malting uses grain grown without irrigation by producers practicing regenerative agriculture. This results in the highest quality grain with the least environmental impact.

Malt Sensory Profile



Hot Steep Method

Items needed to perform the Hot Steep Method:

- Malt to be tested
- 24-ounce Thermos
- Funnel
- Cone coffee filter
- Coffee grinder
- Scale capable of weighing 50.0 g (± 0.1 g)
- Glass beaker, tall, 600 mL volume
- Thermometer, standard, 0-200°C
- Quart sized large or small mouth canning jars
- Heating apparatus, capable of heating water to 65°C

- Grind 50 g. of malt in coffee grinder (grind for 10-15 seconds)
- Add 400 ml of 65°C (149°F) water to Thermos
- Add malt grist to water, cap thermos and shake for 20 seconds
- Let rest for 15 minutes
- When timer is up, swirl for a few seconds then pour into filter in funnel over large jar
- Collect 100ml of wort and add it back into filter
- Collect and taste

Check Your Malt Grind

Take 100g of milled malt grist and place in a #14 sieve stacked over a #30 sieve over a #60 sieve over a pan. Slide 18" back and forth on a smooth surface for 3 minutes, stopping to tap stacked sieves sharply on surface every minute. Record Grist retained in each sieve. *Chart below gives percentage of what should be retained in each sieve for each grind.*

100 gram sample	#14 sieve	#30 sieve	#60 sieve	Pan
Coarse grind	78 grams	14 grams	4 grams	4 grams
Medium grind	53 grams	28 grams	11 grams	8 grams
Fine grind	25 grams	25 grams	30 grams	20 grams

Calculating PPG and OG

PPG (Specific gravity of 1 lb of fermentable in 1 gal of water)
 $PPG = 46.214 \times (DBCG / 100 - MC\% / 100 - 0.002)$

Original Gravity Calculation

$$OG = 1 + (EF\% / 100) \times (PPG \times MW / BV)$$

MW = Malt weight in pounds
 BV = Batch volume in gallons
 EF% = Mashing efficiency
 OG = Original gravity
 PPG = Pounds per gallon
 MC = Moisture content
 DBCG = Dry basis coarse grind extract

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