

KARL'S NINETY 90/-

Official NORTHERN BREWER Instructional Document

Karl Engebretson (whom many of you know through our catalog covers and ads in BYO and Zymurgy) is a certified Giant Norwegian with a taste for similarly-proportioned beers. We have found he has a way with Scottish ales, and this is his 90/- shilling. Somewhere in between an 80/- and a Wee Heavy, ninety also refers to the length (in minutes) of the boil. This additional time spent on heat intensifies the beer's color and adds depth and breadth to its malt profile. Pouring garnet-amber with long legs, the nostrils are bathed in boozy praline, piloncillo sugar, pecan, and resonating malt.

O.G.: 1.066 READY: 6 WEEKS OR MORE

1-2 weeks primary, 2 weeks secondary, 2 weeks bottle conditioning

KIT INVENTORY:

MAILLARD MALTS™ SPECIALTY GRAIN

- 0.25 lbs English Extra Dark Crystal
- 0.25 lbs Fawcett Pale Chocolate
- 0.125 lbs Belgian Biscuit malt Fermentables
- 3.15 lbs Gold malt syrup
- 6 lbs Maris Otter malt syrup late addition (15 min)

HOPTIMUS REX™ PREMIUM HOPS & OTHER FLAVORINGS

- 1.75 oz UK Kent Goldings (90 min)
- 0.25 oz UK Kent Goldings (15 min)

YEAST

Wyeast 1728 Scottish Ale. Ideally suited for Scottish-style ales, and high gravity ales of all types. Apparent attenuation: 69-73%. Flocculation: high. Optimum temp: 55-70 F.

Dry Yeast Alternative: Safale S-04. Temp range 64-75 F.

BEFORE YOU BEGIN ...

MINIMUM REQUIREMENTS

- Homebrewing starter kit for brewing 5 gallon batches
- Boiling kettle of at least 3.5 gallons capacity
- A 5 gallon glass carboy, with bung and airlock, to use as a secondary fermenter - If you do not have a secondary fermenter you may skip the secondary fermentation and add an additional week to primary fermentation before bottling
- Approximately two cases of either 12 oz or 22 oz pry-off style beer bottles

UNPACK THE KIT

- Refrigerate the yeast upon arrival
- Locate the Kit Inventory (above)- this is the recipe for your beer, so keep it handy
- Doublecheck the box contents vs. the Kit Inventory
- Contact us immediately if you have any questions or concerns!

PROCEDURE

A FEW DAYS BEFORE BREWING DAY

1. Incubate yeast. Remove the yeast from the refrigerator, and "smack" as shown on the back of the yeast package. Leave it in a warm place (70-80° F) to incubate until the pack begins to inflate. Allow at least 3 hours for inflation; some packs may take up to several days to show inflation. Do not brew with inactive yeast - we can replace the yeast, but not a batch that fails to ferment properly.

ON BREWING DAY

2. Collect and heat 2.5 gallons of water.

3. Crush and steep specialty grain. Pour crushed grain into supplied mesh bag and tie the open end in a knot. Steep for 20 minutes or until water reaches 170°F. Remove bag and discard.

4. Bring to a boil and add the 3.15 lbs Gold malt syrup. Remove the kettle from the burner and stir in the malt syrup.

5. Return wort to boil. The mixture is now called "wort", the brewer's term for unfermented beer.

- Add 1.75 oz UK Kent Goldings hops and boil for 90 minutes.

- Add 0.25 oz UK Kent Goldings hops and 6 lbs Maris Otter malt syrup 15 minutes before the end of the boil.

6. Cool the wort. When the 90-minute boil is finished, cool the wort to approximately 100° F as rapidly as possible. Use a wort chiller, or put the kettle in an ice bath in your sink.

7. Sanitize fermenting equipment and yeast pack. While the wort cools, sanitize the fermenting equipment - fermenter, lid or stopper, fermentation lock, funnel, etc - along with the yeast pack and a pair of scissors.

8. Fill primary fermenter with 2 gallons of cold water, then pour in the cooled wort. Leave any thick sludge in the bottom of the kettle.

9. Add more cold water as needed to bring the volume to 5 gallons.

10. Aerate the wort. Seal the fermenter and rock back and forth to splash for a few minutes, or use an aeration system and diffusion stone.

11. Optional: if you have our Mad Brewer Upgrade or Gravity Testing kits, measure specific gravity of the wort with a hydrometer and record.

12. Add yeast once the temperature of the wort is 78°F or lower (not warm to the touch). Use the sanitized scissors to cut off a corner of the yeast pack, and carefully pour the yeast into the primary fermenter.

13. Seal the fermenter. Add approximately 1 tablespoon of water to the sanitized fermentation lock. Insert the lock into rubber stopper or lid, and seal the fermenter.

14. Move the fermenter to a warm, dark, quiet spot until fermentation begins.

BEYOND BREWING DAY, WEEKS 1-2

15. Active fermentation begins. Within approximately 48 hours of Brewing Day, active fermentation will begin - there will be a cap of foam on the surface of the beer, and you may see bubbles come through the fermentation lock.

16. Active fermentation ends. Approximately 1-2 weeks after brewing day, active fermentation will end: the cap of foam falls back into the new beer, bubbling in the fermentation lock slows down or stops.

17. Transfer beer to secondary fermenter. Sanitize siphoning equipment and an airlock and carboy bung or stopper. Siphon the beer from the primary fermenter into the secondary.

BEYOND BREWING DAY— SECONDARY FERMENTATION

18. Secondary fermentation. Allow the beer to condition in the secondary fermenter for 2 weeks before proceeding with the next step. Timing now is somewhat flexible.

BOTTLING DAY—ABOUT 1 MONTH AFTER BREWING DAY

19. Sanitize siphoning and bottling equipment.

20. Mix a priming solution (a measured amount of sugar dissolved in water to carbonate the bottled beer). Use the following amounts, depending on which type of sugar you will use: Corn sugar (dextrose) $\frac{2}{3}$ cup in 16 oz water. Table sugar (sucrose) $\frac{5}{8}$ cup in 16 oz water. Then bring the solution to a boil and pour into the bottling bucket.

21. Siphon beer into bottling bucket and mix with priming solution. Stir gently to mix, don't splash.

22. Fill and cap bottles.

1-2 WEEKS AFTER BOTTLING DAY

23. Condition bottles at room temperature for 2 weeks. After this point, the bottles can be stored cool or cold.

24. Serving. Pour into a clean glass, being careful to leave the layer of sediment at the bottom of the bottle. Cheers!