MODERN PALE ALE

STYLE: AMERICAN PALE ALE

TASTING NOTES:

The key to the pale ale style is its drinkability. This modern example features a lighter, crisper malt character. It utilises a blend of Mosaic and Nectaron hops, delivering a burst of tropical, pineapple, and passionfruit flavours, making this kit a perfect summer companion.

SPECIFICATIONS:

OG	1.056	**Boil Time**	60 Mins
FG	1.010	**Batch Size**	23L
IBU	23.9	**Brew Day Duration**	4-6 Hours
Colour	9.3 EBC – Pale Gold	**ABV**	5.9%
Mash Efficiency	80%	**Fermentation time**	11 Days
Mash Time	60 Mins + 10 Min. Mash out	**Fermentation Temp**	18-22°C
Mash Temp	66°C	**Bottling/Kegging Volume**	21L

CHECKLIST BEFORE YOU START:

INGREDIENTS:

☐ 5.85kg Grains 3 foil bags

☐ Yeast 2x 10g packs

☐ Hops 3x 50g bags

☐ Carbonation drops or bottling sugar if bottling (not included)

☐ Calculate water volumes below if not using an app.

Free Grainfather App

1. Pre-Boil Volume	2. Mash Volume:	3. Sparge Volume
Batch Volume(23L) + Boil Losses + (Boil Length * Boil off rate) = Preboil Volume	Grain weight * Mash thickness + Mash tun dead space = Mash Volume	Pre-boil volume – Mash water + (grain weight * grain absorption) = Sparge Volume

- Your Brew system manufacturer should have specifications for boiler loss, boil-off rate, mash tun dead space and recommended mash thickness. We recommend using a grain absorption rate of 0.8L/kg

EQUIPMENT:

☐ All Grain brewing system, e.g. Grainfather G30

☐ Sparge Water Heater

☐ Hydrometer/ Refractometer

☐ 30L Sanitised Fermenter & Airlock

☐ Counterflow/ Immersion Chiller

☐ Mash Paddle

☐ Hot water safe jug >1L

☐ Kegging/ Botting Equipment

BREW AREA:

☐ Access to water

☐ Access to drainage

☐ Access to Power

FERMENTATION AREA:

☐ Stable day-night temperatures

☐ Stationary for Fermentation

BREW DAY:

SET UP & MASH:

☐ Set up the Brew System and ensure they are clean.

☐ Make sure valves are closed on Brew System.

☐ If using a single Vessel brew system like Grainfather G30. Fill Brew System with mash water and heat to 66°C. Or fill your Hot Liquor Tank (HLT) with the total water volume and heat to 66°C.

☐ When the Mash water is at temperature. Add the grains to the mash basket and stir with a mash paddle until the consistency resembles that of porridge.

☐ If your Brew system has a pump, set up recirculation and allow the brew system to maintain the mash temperature while recirculating for **60 Mins**.

☐ Set up the Sparge water heater, fill it with the Sparge water volume, and heat it to 75°C. Or raise the temperature of your HLT to 75°C.

☐ At the end of the 60 min mash, Raise the temperature of the mash to 75°C and let it rest for **10 Mins**.

SPARGE & BOIL:

☐ If using a single Vessel brew system like Grainfather G30 raise the mash basket. Otherwise, Vorlauf (drain mash tun until runnings are clear and pour back into mash tun), then drain first runnings to the kettle.

☐ Slowly add sparge water to the grains and allow to drain into the boiler.

☐ Start heating to near boil (98°C)

☐ Remove grain basket

☐ Record Pre-Boil Gravity_____ & Preboil Volume _____

☐ Bring the kettle to a boil, stirring the surface gently to avoid a boil over.

☐ Start timer when boil starts.

☐ Clean mash basket/ Mash tun

☐ Add 60 min Hop Addition (0 mins into the boil) 25g (1/2 Bag) of Taiheke Hops

☐ With 10 minutes left, set up and submerge your immersion chiller in the boiler. Or set up your counter-flow chiller.

☐ Ensure your fermenter is cleaned and sanitised.

COOLING & TRANSFERRING:

☐ Cool the boiled wort down to 80°C in the boiler

☐ Add Hop Stand hops 25g (1/2 Bag) of Taiheke.

☐ Allow to rest for **10 Mins**.

☐ Cool to pitching temperature with the immersion temperature with the immersion chiller. Or cool and transfer to your clean and sanitised fermenter using a counterflow chiller.

Record Original Gravity (OG)_____ & Amount in the fermenter_____

FERMENTATION:

☐ Ensure the wort is at the pitching temperature, then add the yeast

☐ Fit fermenter lid and Bung & Airlock/ Blow off tube

☐ Move the Fermenter to a place that has a stable 18-22°C area where the fermenter won't be moved for 11 Days

☐ Clean Brewing system

☐ Ferment at between 18-22 °C for 6 days. If possible, raise the temperature to 22°C at the end of the 6 days, for 2 days.

☐ If possible, drop the temperature on the fermenter down to 3-6^{O}C. If not, allow the fermenter to return to about 20^{O}C and add the remaining hops as the dry hop. Let rest for 3 days

KEGGING:

☐ Move the fermenter up to a table, and let the sediment settle.

☐ Sanitise the keg & Transfer Hoses/ fittings.

☐ Rack/Transfer beer straight into the keg, save a sample for tasting and a hydrometer sample.

☐ add priming sugar or force carbonate.

☐ Record Final Gravity: _____ & Keg Volume_____

☐ Clean Fermenter and kegging equipment

BOTTLING:

☐ Determine how many and what type of bottles to use.

☐ Make sure you have enough caps on hand.

☐ Move the fermenter up to a table and let the sediment settle.

☐ Begin sanitising bottles and caps.

☐ Sanitize your filling equipment, e.g. racking cane, transfer hoses, battling wand, bottling bucket and spoon.

☐ If using priming sugar dissolve in warm / boiled water and let it cool.

☐ Carefully rack beer into the bottling bucket; save a sample for tasting and a hydrometer sample.

☐ Add priming sugar solution and mix without splashing.

☐ Siphon/Transfer beer into bottles.

☐ Cap and mark bottles.

☐ If using carbonation drops, add the appropriate number of drops per bottle.

☐ Siphon/Transfer beer into bottles. Save a sample for tasting and a hydrometer sample.

☐ Cap and mark bottles.

☐ Record Final Gravity: _____ & Number of Bottles_____

☐ Clean bottling equipment

DRINK THE BEER:

☐ Wait about 2 weeks and try some; note carbonation levels and flavour profile.

☐ Plan your next brew.