



American Pale Ale ALL GRAIN KIT

**MANGROVE
JACK'S**
BREWING
Co.



TASTING NOTES:

Aroma: Resplendent aromas of pink grapefruit, melon, passion fruit and lemon.

Flavour: In this big beer, the initial toffee notes are then coupled with a fascinating rose petal character, pink grapefruit and herbal yet slightly earthy character.

BREWER'S NOTES:

A classic style and arguably the forerunner to the development of quality beer in the US. This is a slightly different take on it using the same classic malt bill, but using a mixture of old and new hops for a punchier flavour and aroma.

BREW STATS:

OG: 1.054 | **FG:** 1.012 | **ABV:** 5.5%
IBU: 35 | **EBC:** 19 | **VOL:** 23 L (6 US Gal)

GRAIN:

4.9 kg (10.8 lb) Gladfield American Ale Malt
380 g (13.4 oz) Gladfield Medium Crystal Malt

YEAST:

2 sachets (20 g (0.7 oz)) Mangrove Jack's M44
West Coast

EXTRAS:

1 tablet Deltafloc
10 g (0.35 oz) Calcium Sulphate

HOPS:

6 g (0.2 oz) Pacific Jade
40 g (1.4 oz) Columbus
80 g (2.8 oz) Citra
80 g (2.8 oz) Centennial
50 g (1.76 oz) Summit

PREPARATION:

Fill the boiler with 17.8 L (4.7 US Gal) of water and input a temperature of 68°C (154°F) and add the calcium sulphate.

MASH:

When the water reaches 68°C (154°F) slowly add the grain pack, stirring gently as you do to avoid dry clumps. The mash should be a porridge consistency, if it is too dry then add more water.

NOTE: Take note of any extra water added as this will affect the sparge volume.

Set the mash up as per the Grainfather instructions.

Mash for 60 minutes at 68°C (154°F).

MASH OUT:

After 60 minutes, input a temperature of 75°C (167°F) for the mash out. Recirculate the wort at 75°C (167°F) for 10 minutes.

SPARGE:

Sparge with 16 L (4.2 US Gal) of water (unless more water was added during the mash). This water must be at 75°C (167°F)

BOIL:

- Boil time: 90 minutes.
- 60 minute hop addition: When the boil has 60 minutes left, add the 60 minute hop addition.
- 15 minute addition: When the boil has 15 minutes left, add the Carrageenan.
- 0 minute hop additions (flameout*): When the boil is over, switch off the boil control and add the 0 minute hop addition.

*A flameout means to turn off the heat on the boiler and add the hops. The hops then lie in the hot (not boiling) wort. This is for extracting flavours from the hops.

COOL & PITCH:

After adding the 0 minute hop addition, let the wort rest for 20 minutes. After 20 minutes give the wort a good stir. Then chill it using your Counter Flow Wort Chiller, as per the Grainfather instructions. As the cool wort collects in your fermenter, pitch both sachets of yeast.

FERMENT:

Ferment between 18–23°C (65–74°F) for 7–10 days. Add the packet of dry hops 5 days into fermentation or when the SG has dropped below 1.020. After fermentation, bottle or keg. Condition the beer in the bottles or keg for 2 to 4 weeks before drinking.

Recipe designed by Mangrove Jack's Brewing Co. With years of brewing experience and knowledge, Mangrove Jack's provides craft brewers with specialty yeasts, hops and ingredients to make the very best beer at home. With links to renowned brewers worldwide, Mangrove Jack's brings you a superior grain recipe kit for use with the Grainfather.

Peter Eastwood - Mangrove Jack's Head Brewer

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Designed by Brewers for the Grainfather