

☞ Train Effect

Brewing Notebook

TRAIN EFFECT · 2027

This notebook belongs to

NAME _____ PHONE OR EMAIL _____

MY BREWERY _____

SYSTEM _____ FERMENTERS AND KEGS _____

BATCH SIZE L _____ BOIL-OFF L PER HOUR _____ BREWHOUSE EFFICIENCY % _____

WATER SOURCE AND USUAL TREATMENT _____ HOUSE YEAST _____

STANDING NUMBERS _____ the ones you look up every brew

MASH L/KG _____ STRIKE °C _____ SPARGE °C _____ PRE-BOIL L _____ POST-BOIL L _____ FERMENTER L _____

HOW TO USE THIS BOOK

Each batch takes one open spread, with the plan on the left, written before brew day, and the log on the right, filled in as the brew and fermentation go. The reference pages at the front hold the numbers you would otherwise be looking up on your phone with wet hands.

Number every batch

The batch number is already printed, so write the beer's name and date in the index at the front to find it again later, and put the same number on the fermenter and the keg.

Hop columns are yours to label

Write the stage at the top of each hop column, whether that is 60, 10, WP 80 or DH d3 for a dry hop on day three, so any schedule fits. Total each variety at the right and you will know what to order next time.

Fermentables means everything

This covers more than malt, so oats, sugar, dextrose and honey go here too, each with its weight and a rough percentage, and the total on the last line.

Write your own mash and ferment steps

Neither table has printed step names, so a single infusion, a step mash or a ramp all fit, and the ferment plan takes each stage with its temperature and whatever ends it, whether that is a day count, a gravity or a steady reading.

The log is a diary, not a form

Put the date and time down the left and then whatever happened, whether that is the pitch, a reading, a temperature change, dry hop, crash or keg. Packaging, tasting and the lesson for next time have their own lines at the bottom.

Water first

The local water page tells you what comes out of the tap, and the salt table gives the grams for a 23 L batch by beer style, which you can scale by litres for other sizes.

The year

Your brew days, your circles

January 2027

M	T	W	T	F	S	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

February 2027

M	T	W	T	F	S	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

March 2027

M	T	W	T	F	S	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

April 2027

M	T	W	T	F	S	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

May 2027

M	T	W	T	F	S	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

June 2027

M	T	W	T	F	S	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

BREW PLAN

two a month is 24 a year

JANUARY 2027

FEBRUARY 2027

MARCH 2027

APRIL 2027

MAY 2027

JUNE 2027

July 2027

M	T	W	T	F	S	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

August 2027

M	T	W	T	F	S	S
						1
2	3	4	5	6	7	8
9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30	31					

September 2027

M	T	W	T	F	S	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30			

October 2027

M	T	W	T	F	S	S
				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

November 2027

M	T	W	T	F	S	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					

December 2027

M	T	W	T	F	S	S
		1	2	3	4	5
6	7	8	9	10	11	12
13	14	15	16	17	18	19
20	21	22	23	24	25	26
27	28	29	30	31		

BREW PLAN

JULY 2027

AUGUST 2027

SEPTEMBER 2027

OCTOBER 2027

NOVEMBER 2027

DECEMBER 2027

Checklist

This is the order of a brew day, so nothing ends up waiting on something you forgot. Read down it before you start, and put the numbers for the day on the batch sheet.

BEFORE

- . Recipe confirmed, batch sheet filled in
- . Water measured, Campden in, salts weighed
- . Thermometer and hydrometer checked
- . Cold side cleaned and sanitised
- . Yeast out, rehydrated or starter ready

MASH

- . Strike water to temperature
- . Mash in, stir out dough balls, hit target
- . Mash pH at 10 minutes, correct if needed
- . Log any temperature corrections

LAUTER AND SPARGE

- . Recirculate until the wort runs clear
- . Sparge to pre-boil volume
- . Pre-boil gravity and volume recorded

BOIL

- . Timer starts at a full rolling boil
- . Hops and additions per the schedule
- . Finings and nutrient at 10 minutes
- . Note the boil-off

CHILL AND PITCH

- . Chill to pitching temperature
- . Minimise oxygen pickup after chilling
- . Transfer, aerate, pitch
- . OG and volume into the fermenter recorded

FERMENTATION

- . Controller set, schedule written in the log
- . Gravity and temperature checkpoints logged
- . Diacetyl test before any crash

PACKAGING

- . Keg or bottle, carbonation target set
- . Date, method, priming or psi recorded
- . First taste written down while it is fresh

A TYPICAL DAY all grain, 23 L, about four hours

START	STEP	MINUTES
0:00	Heat strike water, weigh salts, mill grain	30
0:30	Mash in, hit temperature, check pH at 10 minutes	60
1:30	Mash out, recirculate, lauter and sparge to pre-boil volume	30
2:00	Boil, hops on the schedule, finings at 10	60
3:00	Whirlpool and chill to pitching temperature	30
3:30	Transfer, aerate, pitch, OG and volume into the log	15
3:45	Clean up while it is wet	30

BY STYLE

PRIMING SUGAR beer finished at 20 °C

Priming assumes the beer finished at 20 °C and holds about 0.9 volumes already. Beer that finished colder holds more; use a little less. Dissolve the sugar in boiled water and mix gently into the whole batch.

MY KEGS

regulator settings that worked

VOLUMES OF CO2 keg temperature down, gauge psi across

°C	6	8	10	12	14	16	18	20	25	30
1	2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.6	4.2	4.7
2	2.1	2.3	2.5	2.7	2.9	3.1	3.3	3.5	4.0	4.5
3	2.0	2.2	2.4	2.6	2.8	3.0	3.2	3.4	3.9	4.4
4	2.0	2.1	2.3	2.5	2.7	2.9	3.1	3.3	3.7	4.2
5	1.9	2.1	2.3	2.4	2.6	2.8	3.0	3.2	3.6	4.1
6	1.8	2.0	2.2	2.4	2.5	2.7	2.9	3.1	3.5	3.9
8	1.7	1.9	2.0	2.2	2.4	2.5	2.7	2.9	3.3	3.7
10	1.6	1.8	1.9	2.1	2.2	2.4	2.5	2.7	3.1	3.5
12	1.5	1.6	1.8	1.9	2.1	2.2	2.4	2.5	2.9	3.3
15	1.4	1.5	1.6	1.8	1.9	2.0	2.2	2.3	2.6	3.0
18	1.3	1.4	1.5	1.6	1.7	1.9	2.0	2.1	2.4	2.7
20	1.2	1.3	1.4	1.5	1.6	1.8	1.9	2.0	2.3	2.6

The easy way is to set serving pressure at fridge temperature and leave it for 10 to 14 days. If you are in a hurry, 30 psi for 24 to 36 hours gets there, then vent and drop to serving pressure. Keep the beer cold throughout, because warm beer gives the gas back.

WHAT COMES OUT OF THE TAP

pH 7.7 · alkalinity 48 as CaCO₃

WHAT IT MEANS FOR BREWING

Dark and roasty beers are the easy case here, while pale lagers and blondes will need lactic acid or acidulated malt.

from a test kit or the supplier's report

Salts for 23 L

Grams per batch, worked out from the tap figures opposite. The amounts assume dihydrate gypsum and calcium chloride, so use about a quarter less if yours is anhydrous. Epsom salt is left out on purpose because the malt supplies enough magnesium.

BY BEER STYLE

TARGET	GYPSUM G	CACL2 G	CA / SO4 / CL	SO4 : CL	RA
West Coast IPA, hoppy pale	7.2	2.1	116 / 181 / 60	3.0 : 1	15
Hoppy amber, NZ pale	4.7	3.3	105 / 120 / 85	1.4 : 1	18
Belgian, saison	2.8	2.8	80 / 74 / 75	1 : 1.0	25
Hazy, NEIPA	2.8	6.4	122 / 74 / 150	1 : 2.0	13
Malty, amber, dark	1.8	3.5	78 / 50 / 89	1 : 1.8	26
Pale lager, pilsner	1.0	2.0	52 / 31 / 58	1 : 1.9	33

RA is residual alkalinity as CaCO3 once the calcium is accounted for. A positive figure means a pale grist will run high on mash pH, so measure at ten minutes and add lactic acid 1 mL at a time, while darker grists bring enough acidity to look after themselves.

WHAT EACH SALT DOES

SALT	RAISES	USE
Gypsum (CaSO4)	Calcium and sulfate	Hop-forward bitterness, dry finish
Calcium chloride (CaCl2)	Calcium and chloride	Malt body and roundness
Epsom salt (MgSO4)	Magnesium and sulfate	Rarely needed; malt already supplies magnesium
Lactic acid (88%)	Nothing, lowers pH	Mash pH correction, 1 mL at a time, measure at 10 minutes
Table salt (NaCl)	Sodium and chloride	Perceived sweetness at low doses
Baking soda (NaHCO3)	Sodium and bicarbonate	Raising mash pH for very dark grists only

CLASSIC CITY PROFILES

ppm, for reference							
CITY	CA	MG	NA	CL	SO4	HC03	SUITS
Pilsen	7	2	2	7	5	17	Pilsner, pale lagers, anything soft and delicate
Munich	109	21	3	2	77	295	Dunkel, bock, Marzen, dark lagers
Dortmund	230	23	69	130	330	235	Export, Kolsch, balanced pale lagers
London	90	4	24	34	40	123	Bitter, mild, porter, brown ale
Dublin	118	4	12	19	54	319	Dry stout, porter, roasty beers
Burton on Trent	352	24	44	36	820	320	English IPA, ESB, pale ale

MY USUAL ADDITIONS

BEER	GYPSUM G	CACL2 G	ACID ML	MASH PH	LITRES

SG TO PLATO						HYDROMETER		20 °C		REFRACTOMETERwort, 1.04	
SG	PTS	°P	SG	PTS	°P	°C	ADD PTS	BRIX	SG		
1.000	0	0.0	1.064	64	15.7	5	-1.9	8	1.031		
1.004	4	1.0	1.068	68	16.6	10	-1.5	10	1.038		
1.008	8	2.1	1.072	72	17.5	15	-0.9	11	1.042		
1.012	12	3.1	1.076	76	18.4	20	0.0	12	1.046		
1.016	16	4.1	1.080	80	19.3	25	+1.2	13	1.050		
1.020	20	5.1	1.084	84	20.2	30	+2.6	14	1.055		
1.024	24	6.1	1.088	88	21.1	35	+4.3	15	1.059		
1.028	28	7.1	1.092	92	22.0	40	+6.2	16	1.063		
1.032	32	8.0	1.096	96	22.9	50	+10.7	17	1.067		
1.036	36	9.0	1.100	100	23.8	60	+15.9	18	1.071		
1.040	40	10.0	1.104	104	24.6			20	1.080		
1.044	44	11.0	1.108	108	25.5			22	1.088		
1.048	48	11.9	1.112	112	26.4			24	1.097		
1.052	52	12.9	1.116	116	27.2						
1.056	56	13.8	1.120	120	28.1						
1.060	60	14.7									

ABV	FROM OG	AND FG	(OG - FG) × 131.25				
	OG	1.006	1.008	1.010	1.012	1.014	1.016
1.040	4.5	4.2	3.9	3.7	3.4	3.2	
1.045	5.1	4.9	4.6	4.3	4.1	3.8	
1.050	5.8	5.5	5.3	5.0	4.7	4.5	
1.055	6.4	6.2	5.9	5.6	5.4	5.1	
1.060	7.1	6.8	6.6	6.3	6.0	5.8	
1.065	7.7	7.5	7.2	7.0	6.7	6.4	
1.070	8.4	8.1	7.9	7.6	7.4	7.1	
1.080	9.7	9.5	9.2	8.9	8.7	8.4	

ABV

$$(OG - FG) \times 131.25$$

Attenuation

$$(OG - FG) \div (OG - 1) \times 100$$

Efficiency

$$\text{points} \times L \text{ collected} \div (\text{kg} \times 300) \times 100$$

Strike temp

$$0.41 \div (L/\text{kg}) \times (\text{target} - \text{grain}) + \text{target}$$

Residual alkalinity

$$\text{alkalinity} = (\text{Ca} \div 3.5 + \text{Mg} \div 7)$$

Brix to SG

Brix $\div 1.04$, then read the table

Alpha match

$$g \times \text{old alpha} \div \text{new alpha}$$

$$\text{points} \times \text{litres} \div (\text{kg} \times 300)$$

Mash, hops and units

MASS		MASS	
METRIC	IMPERIAL	METRIC	IMPERIAL
5 g	0.18 oz	0.5 kg	1.10 lb
10 g	0.35 oz	1 kg	2.20 lb
15 g	0.53 oz	2 kg	4.41 lb
20 g	0.71 oz	3 kg	6.61 lb
25 g	0.88 oz	4 kg	8.82 lb
30 g	1.06 oz	5 kg	11.02 lb
50 g	1.76 oz	6 kg	13.23 lb
100 g	3.53 oz	8 kg	17.64 lb
0.25 kg	0.55 lb	10 kg	22.05 lb

HOT SIDE °C	SPARGE	°C	°F	MASH, °C
50		122		
52		126		
54		129		
56		133		
58		136		
60		140		
62		144		
64		147		
66		151		
68		154		
70		158		
72		162		
74		165		
76		169		
78		172		
80		176		
90		194		
100		212		

COLOUR		
EBC	SRM	°L
4	2.0	2.1
6	3.0	2.8
8	4.1	3.6
12	6.1	5.1
16	8.1	6.6
20	10.2	8.1
25	12.7	9.9
30	15.2	11.8
40	20.3	15.6
50	25.4	19.3
60	30.5	23.0
80	40.6	30.5
100	50.8	38.0

BOIL-OFF I MEASURED		so the next pre-boil volume is right			
#	BEER	PRE-BOIL L	POST-BOIL L	MINUTES	L PER HOUR

Faults

Start by working out whether a fault is biological or comes from the process. Yeast-made faults can still clear while the yeast is alive, warm and in the beer, so that chance is gone once you cold crash, whereas a process fault cannot be fixed after the fact, only avoided next batch.

Biological

Diacetyl, acetaldehyde, sulfur and yeast phenol.
Warm the beer, keep the yeast in suspension and give it time before you taste again.

Process

DMS, chlorophenol, oxidation, astringency, fusels and lightstrike. There is no saving the batch, so put the effort into fixing the process.

FAULT	CLASS	STAGE	PREVENT	FIX	AT HOME IN
Diacetyl. butter, butterscotch, slick mouthfeel	biological	End of ferment, shows in package	Rest 2 to 3 °C warmer until a forced test is clean. Pitch enough yeast, aerate. Re-run the clock after any dry hop.	Hold warm and retest. Do not cold crash.	Mild in some dark British ales
Acetaldehyde. green apple, fresh pumpkin, solvent	biological	Early fermentation	Keep under 22 °C, aerate well, add nutrient with zinc, give it 14 days.	Warm it, keep yeast in suspension, wait.	Never, though it mellows with a month or two
Sulfur. rotten egg, struck match	biological	Fermentation	Aerate and feed the yeast; short lag; lagers blow it off during a warm rest.	Warm rest and off-gas before packaging.	Light in fresh lagers
Fusel alcohols. hot, solventy, harsh	process	Hot or stressed fermentation	Ferment 18 to 22 °C, pitch enough yeast, keep it off the trub.	None. Cool ageing softens the perception.	Part of big beers at low levels
DMS. cooked corn, creamed sweetcorn	process	Boil and chill	Vigorous uncovered boil, 60 to 90 minutes for pilsner malt, then chill fast.	None.	Low levels in pale lagers
Chlorophenol. plaster, TCP, band-aid	process	Water treatment	Campden, one crushed tablet per 75 L, in all brewing water. No chlorine cleaners near wort or beer.	None.	Never
Yeast phenol. clove, smoke, medicinal	biological	Fermentation	Pick a POF negative strain unless you want it. Ferment cooler.	None once made.	Weizen and Belgian styles, where it is the point
Oxidation. wet cardboard, sherry, dull hops	process	Transfer and storage	Closed transfers, purged kegs and bottles, store cold and dark.	None. Drink it young.	Sherry notes in some aged strong ales
Astringency. drying, tannic, puckering	process	Mash and sparge	Mash pH 5.2 to 5.6, sparge below 80 °C, do not oversparge or squeeze the grain.	None.	Never
Lactic sourness. clean sour, yoghurt	biological	Fermentation and conditioning	Sealed fermentation, clean then sanitise, separate soft parts for sour beers.	Discard if unintended.	Sours and kettle sours
Acetic. vinegar, sharp	process	Storage with air	Keep oxygen out; sealed packages; full barrels.	None.	A trace in Flanders red, otherwise never
Lightstruck. skunk, burnt rubber	process	Packaging and storage	Brown glass, kegs or cans. Keep it out of sunlight and fluorescent light.	None.	Never
Yeasty. bready, meaty, autolysed	biological	Packaging and pouring	Cold crash 48 to 72 hours, pour carefully, do not leave beer on the cake for weeks.	Time, cold and still.	Hefeweizen, when roused on purpose
Metallic. tinny, blood, coins	process	Hot side and water	Sound stainless, test water for iron, store malt dry and sealed.	None.	Never
Grassy. fresh cut grass, hay	process	Ingredient storage	Cold-stored hops, cool dry sealed malt.	None.	Never
Soapy. soap, fatty	process	Long trub contact	Package within a week or so of final gravity, off the trub.	None. Check the glassware first.	Never

Glossary

HOT SIDE

Conversion The mash step where enzymes turn grain starch into fermentable sugar.

Dough ball A clump of dry flour trapped in grain at mash-in that never converts. Stir as you add.

Grain bed The settled mass of grain that acts as the filter during lautering.

Hot break The fast protein foam that rises as wort reaches the boil. Watch for the boil-over.

Kettle finings Whirlfloc or Irish moss added late in the boil so proteins clump and drop out.

Lauter Separating sweet wort from the spent grain, draining plus sparging.

Mash Steeping crushed grain in hot water, about 65 to 67 °C, to convert starch to sugar.

Mash out Raising the mash to 75 to 78 °C to stop enzyme activity and thin the wort for draining.

Mash pH Acidity of the mash. 5.2 to 5.4 is the target band for pale beers; dark grists land lower by themselves.

Recirculation Pumping wort gently over the grain bed to set a clear filter and even out temperature. Too fast compacts the bed.

Sparge Rinsing residual sugar from the grain with hot water. Fly is a slow rinse, batch is add, drain, repeat.

Strike water The mash water, heated so that adding grain lands on mash temperature. See the strike table.

Trub The sediment of coagulated protein and hop matter left after the boil.

Whirlpool Holding hot wort, about 75 to 80 °C, after the boil with late hops for aroma without much bitterness.

WATER

Alkalinity Bicarbonate buffering that pushes mash pH up. The reason Hutt Valley water is not a blank slate.

Campden Metabisulphite tablet that neutralises chlorine and chloramine. One crushed tablet per 75 L, in all brewing water.

Calcium chloride Adds calcium and chloride. Rounds and fills out malt character.

Gypsum Calcium sulfate. Adds calcium and sulfate, sharpens and dries the hop bitterness.

Residual alkalinity Alkalinity left after calcium and magnesium react in the mash. Positive means pale grists run high on pH.

Sulfate to chloride ratio The main flavour lever. High is crisp and bitter, low is soft and malty.

MEASUREMENTS

ABV Alcohol by volume. About (OG minus FG) times 131.25.

Attenuation How much gravity the yeast removed, (OG minus FG) over (OG minus 1). How dry it finished.

EBC and SRM Colour scales; EBC is about twice SRM. Higher is darker.

Efficiency How much of the grain's sugar you collected. Brewhouse efficiency into the fermenter is typically 65 to 80 percent.

FAN Free amino nitrogen, the yeast's usable nitrogen. Run short and the yeast makes diacetyl and sulfur instead.

Gravity points The digits after the decimal times 1000. 1.050 is 50 points.

IBU International bitterness unit, about 1 mg/L of iso- α acid.

OG and FG Original gravity going into the fermenter, final gravity once fermentation has finished.

Plato and Brix Sugar by weight scales. About 4 gravity points per degree.

Refractometer Reads Brix from two drops. Right on brew day, needs correcting once alcohol is present.

FERMENTATION

Autolysis Yeast breaking down after long contact, giving rubbery or meaty notes. Do not leave beer on the cake for weeks.

Biological versus process fault The first question for any off-flavour. Yeast-made faults clear with warm live yeast; process faults only prevent.

Cold crash Chilling finished beer to 1 to 4 °C to drop yeast and haze. A one-way door, so run the diacetyl test first.

Diacetyl rest Holding the beer a few degrees warmer at the end so the yeast clears diacetyl. It is about time, not temperature.

Esters Fruity aroma compounds from yeast. Encouraged warm, suppressed cool or under pressure.

Flocculation How readily yeast clumps and settles. High flocculators clear fast but can drop out before they finish cleaning up.

Forced diacetyl test Heat a sample to 60 °C for 20 minutes so precursor converts, then smell what the beer will become.

Hop creep Dry hop enzymes restarting fermentation, lowering FG and raising carbonation. A bottling safety issue.

Krausen The foamy head on top of actively fermenting beer.

Lag phase The quiet 12 to 24 hours after pitching. A long one makes more diacetyl precursor.

Pitch rate How much yeast you add. Dry yeast about 0.5 to 1.0 g per litre, weighed.

POF A yeast's genetic switch for clove phenol. Yes or no per strain, not a dial.

Spunding Sealing the fermenter under a pressure valve so the beer carbonates itself.

Zinc The trace nutrient homebrewers run short of. It finishes acetaldehyde into ethanol; salts do not supply it, nutrient blends do.

HOPS

Alpha acids Hop resins that isomerise in the boil to make bitterness. The percentage on the packet.

Biotransformation Yeast converting hop compounds into new aromas when dry hopped during active fermentation.

Dry hopping Adding hops without heat, during or after fermentation, for aroma.

Thiols The tropical and passionfruit compounds New Zealand hops are prized for, released or transformed by yeast.

PACKAGING

Bottle conditioning Carbonating in the sealed bottle by feeding the yeast a measured priming sugar dose.

Closed transfer Moving beer between vessels under CO₂ with no air contact.

Force carbonation Carbonating a keg with CO₂ under pressure. Pressure only means something with a temperature.

Priming sugar The sugar dose that carbonates bottles, calculated assuming fermentation has truly finished.

Volumes CO₂ The carbonation unit. Ales about 2.4, lagers 2.5, wheat and Belgians 3 or more.

WILD AND BARREL

Brettanomyces Wild yeast giving funk, dryness and complexity over months.

Kettle sour Souring wort with Lactobacillus before the boil, so bugs never touch the cold side.

Pellicle The film on a wild beer's surface. A sign of activity, not spoilage.

Solera Draw off part of a barrel and top up with fresh beer, so the culture runs on for years.

Style quick reference

The vital statistics for the styles homebrewers reach for most. Colour is given in EBC, which is roughly double the SRM figure the guidelines use.

	STYLE	OG	FG	IBU	EBC	ABV %
1B	American Lager	1.040-1.050	1.004-1.010	8-18	4-7	4.2-5.3
2A	International Pale Lager	1.042-1.050	1.008-1.012	18-25	4-12	4.5-6.0
3A	Czech Pale Lager	1.028-1.044	1.008-1.014	20-35	6-12	3.0-4.1
4A	Munich Helles	1.044-1.048	1.006-1.012	16-22	6-10	4.7-5.4
5B	Kölsch	1.044-1.050	1.007-1.011	18-30	7-10	4.4-5.2
5D	German Pils	1.044-1.050	1.008-1.013	22-40	4-8	4.4-5.2
6A	Märzen	1.054-1.060	1.010-1.014	18-24	16-33	5.6-6.3
7A	Vienna Lager	1.048-1.055	1.010-1.014	18-30	18-30	4.7-5.5
8A	Munich Dunkel	1.048-1.056	1.010-1.016	18-28	33-55	4.5-5.6
9A	Doppelbock	1.072-1.112	1.016-1.024	16-26	12-49	7.0-10.0
10A	Weissbier	1.044-1.053	1.008-1.014	8-15	4-12	4.3-5.6
11C	Strong Bitter	1.048-1.060	1.010-1.016	30-50	16-35	4.6-6.2
12A	British Golden Ale	1.038-1.053	1.006-1.012	20-45	4-10	3.8-5.0
12C	English IPA	1.050-1.070	1.010-1.015	40-60	12-28	5.0-7.5
13B	British Brown Ale	1.040-1.052	1.008-1.013	20-30	24-43	4.2-5.9
15A	Irish Red Ale	1.036-1.046	1.010-1.014	18-28	18-28	3.8-5.0
16A	Sweet Stout	1.044-1.060	1.012-1.024	20-40	59-79	4.0-6.0
16B	Oatmeal Stout	1.045-1.065	1.010-1.018	25-40	43-79	4.2-5.9
16D	Foreign Extra Stout	1.056-1.075	1.010-1.018	50-70	59-79	6.3-8.0
18A	Blonde Ale	1.038-1.054	1.008-1.013	15-28	6-12	3.8-5.5
18B	American Pale Ale	1.045-1.060	1.010-1.015	30-50	10-20	4.5-6.2
19A	American Amber Ale	1.045-1.060	1.010-1.015	25-40	20-33	4.5-6.2
19C	American Brown Ale	1.045-1.060	1.010-1.016	20-30	35-69	4.3-6.2
20A	American Porter	1.050-1.070	1.012-1.018	25-50	43-79	4.8-6.5
20C	Imperial Stout	1.075-1.115	1.018-1.030	50-90	59-79	8.0-12.0
21A	American IPA	1.056-1.070	1.008-1.014	40-70	12-28	5.5-7.5
21C	Hazy IPA	1.060-1.085	1.010-1.015	25-60	6-14	6.0-9.0
22A	Double IPA	1.065-1.085	1.008-1.018	60-100	12-28	7.5-10.0
23A	Berliner Weisse	1.028-1.032	1.003-1.006	3-8	4-6	2.8-3.8
23B	Flanders Red Ale	1.048-1.057	1.002-1.012	10-25	20-33	4.6-6.5
24A	Witbier	1.044-1.052	1.008-1.012	8-20	4-8	4.5-5.5
24B	Belgian Pale Ale	1.048-1.054	1.010-1.014	20-30	16-28	4.8-5.5
25B	Saison	1.048-1.065	1.002-1.008	20-35	10-28	3.5-5.0
26A	Belgian Single	1.044-1.054	1.004-1.010	25-45	6-10	4.8-6.0
26B	Belgian Dubbel	1.062-1.075	1.008-1.018	15-25	20-33	6.0-7.6
28A	Brett Beer	.	.	.	.	.

INGREDIENTS

New Zealand hops

Alpha ranges are from the current crop, but they shift year to year, so check the packet. When a hop is out of stock, the Swap for column lists its nearest substitutes.

HOP	ALPHA	CHARACTER	SWAP FOR
Nelson Sauvin	10-13%	Gooseberry, white wine, passionfruit	Riwaka, Galaxy, Wai-iti
Motueka	5.5-10%	Lime, lemon zest, tropical	Riwaka, Saaz, Hallertau Mittelfrüh
Riwaka	4.5-6.5%	Grapefruit, passionfruit, intense	Nectaron, Citra, Motueka
Nectaron	10-14%	Pineapple, passionfruit, stone fruit	Riwaka, Citra, Mosaic
Wai-iti	2-3.5%	Peach, apricot, lime; late and dry hop	Riwaka, Pacifica
Rakau	10-11%	Stone fruit, pine, dual purpose	Nectaron, Nelson Sauvin
Moutere	15.5-18%	Grapefruit, tropical, big bittering	Superdelic, Nectaron, Galaxy
Waimea	16-19%	Tangelo, pine, high alpha	Nelson Sauvin, Summit
Wakatu	6-9%	Lime, floral, soft	Motueka, Hallertau Mittelfrüh, Saaz
Kohatu	5-7.5%	Pine, tropical, clean	Riwaka, Nectaron
Taiheke	6-8%	Citrus, grapefruit; the NZ Cascade	Cascade, Riwaka, Motueka
Pacifica	5-6%	Orange marmalade, citrus	Riwaka, Wakatu
Pacific Gem	13-15%	Blackberry, oak; bittering	Pacific Jade, Columbus
Southern Cross	11-14%	Lemon, pine, resin	Green Bullet, Sticklebract
Pacific Jade	12-14%	Black pepper, citrus; soft bitterness	Magnum, Nelson Sauvin, Riwaka
Green Bullet	11-14%	Raisin, spice, pine	Pacific Jade, Columbus
Dr Rudi	10-12%	Pine, lemongrass, resin	Green Bullet, Pacific Gem, Magnum
Superdelic	9-10.5%	Red fruit, candy, citrus	Nectaron, Citra, Galaxy
NZ Chinook	10.5-14%	Pine, grapefruit, spice	Simcoe, Centennial

BATCHES

Shopping and plans

Somewhere to keep track of grain and hops to order, yeast to harvest and the next few beers.

TO ORDER

INGREDIENT

AMOUNT

DONE

NEXT UP

BEER

STYLE

WHEN

YEAST

BEER

STYLE

WHEN

YEAST

BEER

STYLE

WHEN

YEAST

YEAST BANK

strain, harvested, generation

Index

Write one line per batch on the day you brew it, so you can find a beer again by its name.

#	BEER	STYLE	BREWED	OG	FG	RATING
01						
02						
03						
04						
05						
06						
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						

BEER Mean WCIPA (Pomona variant)



BREW DATE 24 / 4 / 2026 STYLE 21A American IPA BATCH SIZE L 22.5

OG 1.068 FG 1.007 ABV % 8.0 IBU 50 EBC 23

FERMENTABLES malt · sugar · adjuncts · total on the last line

KG / G	FERMENTABLE	%
3.8 kg	Gladfield Light Lager malt	56
1.9 kg	Gladfield Ale malt	28
900 g	Gladfield Munich malt	13
190 g	Gladfield Supernova malt	3
6.79 kg	Total	100

HOPS write the stage over each column: 60 · 10 · WP 80 · DH d3

HOP	60	5	WP 75	DH d2	DH d5	TOTAL G
Pacific Jade	10	-	-	-	-	10
Columbus	-	25	30	20	60	135
Simcoe	-	25	30	20	60	135
Mosaic Cryo	-	12.5	15	10	30	67.5
TOTAL	10	62.5	75	50	150	347.5

WATER salts and acid ADDITIONS finings · nutrient · spice · fruit

	ADDITION	AMOUNT	WHEN
Calcium chloride 3.8 g	Whirlfloc	-	15 min
Gypsum 2.8 g, Epsom salt 3.8 g	Yeast nutrient	5 g	10 min
Lactic 88% to hit the pH below	Zinc	1/2 tab	10 min

MASH PH 5.3 SPARGE PH 5.6

MASH AND BOIL steps · volumes · boil FERMENT PLAN pitch · primary · rise · rest · crash

STEP	L	°C	MIN	YEAST	LalBrew Pomona	QTY	2 packets
Mash in	21	65	60	STAGE	°C	UNTIL / NOTES	
Mash out	-	75	10	Pitch	18.5	dry pitch, spunded	
Sparge	12	85	-	Primary	18.5	48 h, DH1 at about 1.018	
Pre-boil	30	-	-	Rise	20.5	+1 °C a day from day 3	
Boil, then WP	-	75	60, 35	Rest	20.5	DH2 at the top, hold to FG	
Fermenter	22.5	18.5	-	Crash	3	1 °C a day, then 48 h	

PACKAGING

TASTING

Light straw, proper West Coast bitterness, good foam that holds.

Stronger than James's at 8%. A little hot young, mellowed with time.

LESSONS FOR NEXT TIME

Lager base hit 90% attenuation, past the strain's figure. Plan 1.007

Two dry hops and trub cost 3 L. Put 24 L in to fill a 19 L keg.

01

BREW DATE

STYLE

BATCH SIZE L

OG

FG

ABV %

IBU

EBC

FERMENTABLES

malt · sugar · adjuncts · total on the last line

KG / G

FERMENTABLE

%

HOPS

write the stage over each column: 60 · 10 · WP 80 · DH d3

HOP

TOTAL G

TOTAL

WATER

salts and acid

ADDITIONS

finings · nutrient · spice · fruit

ADDITION

AMOUNT

WHEN

MASH PH

SPARGE PH

MASH AND BOIL

```
steps · volumes · boil
```

FERMENT PLAN

pitch · primary · rise · rest · crash

STEP

L

°C

MIN

YEAST

OTY

STAGE

°C

UNTIL / NOTES

BEER

BATCH 01 · LOG

PACKAGING

METHOD	DATE	VOL CO2	PSI / G	VOLUME L
--------	------	---------	---------	----------

TASTING

LESSONS FOR NEXT TIME

BREW DATE

STYLE

BATCH SIZE L

OG

FG

ABV %

IBU

EBC

FERMENTABLES

malt · sugar · adjuncts · total on the last line

KG / G

FERMENTABLE

%

HOPS

write the stage over each column: 60 · 10 · WP 80 · DH d3

HOP

TOTAL G

TOTAL

WATER

salts and acid

ADDITIONS

finings · nutrient · spice · fruit

ADDITION

AMOUNT

WHEN

MASH PH

SPARGE PH

MASH AND BOIL

```
steps · volumes · boil
```

FERMENT PLAN

pitch · primary · rise · rest · crash

STEP

L

°C

MIN

YEAST

OTY

STAGE

°C

UNTIL / NOTES

BEER

BATCH 02 · LOG

PACKAGING

METHOD	DATE	VOL CO2	PSI / G	VOLUME L
--------	------	---------	---------	----------

TASTING

LESSONS FOR NEXT TIME

03

BREW DATE

STYLE

BATCH SIZE L

OG

FG

ABV %

IBU

EBC

FERMENTABLES

malt · sugar · adjuncts · total on the last line

KG / G

FERMENTABLE

%

HOPS

write the stage over each column: 60 · 10 · WP 80 · DH d3

HOP

TOTAL G

TOTAL

WATER

salts and acid

ADDITIONS

finings · nutrient · spice · fruit

ADDITION

AMOUNT

WHEN

MASH PH

SPARGE PH

MASH AND BOIL

```
steps · volumes · boil
```

FERMENT PLAN

pitch · primary · rise · rest · crash

STEP

L

°C

MIN

YEAST

OTY

STAGE

°C

UNTIL / NOTES

BEER

BATCH 03 · LOG

BEER

BATCH 03 · LOG

PACKAGING

METHOD	DATE	VOL CO2	PSI / G	VOLUME L
--------	------	---------	---------	----------

TASTING

LESSONS FOR NEXT TIME

BREW DATE

STYLE

BATCH SIZE L

OG

FG

ABV %

IBU

EBC

FERMENTABLES

malt · sugar · adjuncts · total on the last line

KG / G

FERMENTABLE

%

HOPS

write the stage over each column: 60 · 10 · WP 80 · DH d3

HOP

TOTAL G

TOTAL

WATER

salts and acid

ADDITIONS

finings · nutrient · spice · fruit

ADDITION

AMOUNT

WHEN

MASH PH

SPARGE PH

MASH AND BOIL

```
steps · volumes · boil
```

FERMENT PLAN

pitch · primary · rise · rest · crash

STEP

L

°C

MIN

YEAST

OTY

STAGE

°C

UNTIL / NOTES

BEER

BATCH 04 · LOG

BEER

BATCH 04 · LOG

PACKAGING

METHOD	DATE	VOL CO2	PSI / G	VOLUME L
--------	------	---------	---------	----------

TASTING

LESSONS FOR NEXT TIME

05

BREW DATE

STYLE

BATCH SIZE L

OG

FG

ABV %

IBU

EBC

FERMENTABLES

malt · sugar · adjuncts · total on the last line

KG / G

FERMENTABLE

%

HOPS

write the stage over each column: 60 · 10 · WP 80 · DH d3

HOP

TOTAL G

TOTAL

WATER

salts and acid

ADDITIONS

finings · nutrient · spice · fruit

ADDITION

AMOUNT

WHEN

MASH PH

SPARGE PH

MASH AND BOIL

```
steps · volumes · boil
```

FERMENT PLAN

pitch · primary · rise · rest · crash

STEP

L

°C

MIN

YEAST

OTY

STAGE

°C

UNTIL / NOTES

BEER

BATCH 05 · LOG

PACKAGING

METHOD	DATE	VOL CO2	PSI / G	VOLUME L
--------	------	---------	---------	----------

TASTING

LESSONS FOR NEXT TIME

06

BREW DATE

STYLE

BATCH SIZE L

OG

FG

ABV %

IBU

EBC

FERMENTABLES

malt · sugar · adjuncts · total on the last line

KG / G

FERMENTABLE

%

HOPS

write the stage over each column: 60 · 10 · WP 80 · DH d3

HOP

TOTAL G

TOTAL

WATER

salts and acid

ADDITIONS

finings · nutrient · spice · fruit

ADDITION

AMOUNT

WHEN

MASH PH

SPARGE PH

MASH AND BOIL

```
steps · volumes · boil
```

FERMENT PLAN

pitch · primary · rise · rest · crash

STEP

L

°C

MIN

YEAST

OTY

STAGE

°C

UNTIL / NOTES

BEER

BATCH 06 · LOG

BEER

BATCH 06 · LOG

PACKAGING

METHOD	DATE	VOL CO2	PSI / G	VOLUME L
--------	------	---------	---------	----------

TASTING

LESSONS FOR NEXT TIME

07

BREW DATE

STYLE

BATCH SIZE L

OG

FG

ABV %

IBU

EBC

FERMENTABLES

malt · sugar · adjuncts · total on the last line

KG / G

FERMENTABLE

%

HOPS

write the stage over each column: 60 · 10 · WP 80 · DH d3

HOP

TOTAL G

TOTAL

WATER

salts and acid

ADDITIONS

finings · nutrient · spice · fruit

ADDITION

AMOUNT

WHEN

MASH PH

SPARGE PH

MASH AND BOIL

```
steps · volumes · boil
```

FERMENT PLAN

pitch · primary · rise · rest · crash

STEP

L

°C

MIN

YEAST

OTY

STAGE

°C

UNTIL / NOTES

BEER

BATCH 07 · LOG

PACKAGING

METHOD	DATE	VOL CO2	PSI / G	VOLUME L
--------	------	---------	---------	----------

TASTING

LESSONS FOR NEXT TIME

08

BATCH SIZE L

EBC

malt · sugar · adjuncts · total on the last line

%

write the stage over each column: 60 · 10 · WP 80 · DH d3

TOTAL G

TOTAL

finings · nutrient · spice · fruit

WHEN

SPARGE PH

pitch · primary · rise · rest · crash

QTY

UNTIL / NOTES

BEER

BATCH 08 · LOG

PACKAGING

METHOD	DATE	VOL CO2	PSI / G	VOLUME L
--------	------	---------	---------	----------

TASTING

LESSONS FOR NEXT TIME

09

BREW DATE

STYLE

BATCH SIZE L

OG

FG

ABV %

IBU

EBC

FERMENTABLES

malt · sugar · adjuncts · total on the last line

KG / G

FERMENTABLE

%

HOPS

write the stage over each column: 60 · 10 · WP 80 · DH d3

HOP

TOTAL G

TOTAL

WATER

salts and acid

ADDITIONS

finings · nutrient · spice · fruit

ADDITION

AMOUNT

WHEN

MASH PH

SPARGE PH

MASH AND BOIL

```
steps · volumes · boil
```

FERMENT PLAN

pitch · primary · rise · rest · crash

STEP

L

°C

MIN

YEAST

OTY

STAGE

°C

UNTIL / NOTES

BEER BATCH 09 · LOG

BEER

BATCH 09 · LOG

PACKAGING

METHOD	DATE	VOL CO2	PSI / G	VOLUME L
--------	------	---------	---------	----------

TASTING

LESSONS FOR NEXT TIME

10

BREW DATE

STYLE

BATCH SIZE L

OG

FG

ABV %

IBU

EBC

FERMENTABLES

malt · sugar · adjuncts · total on the last line

KG / G

FERMENTABLE

%

HOPS

write the stage over each column: 60 · 10 · WP 80 · DH d3

HOP

TOTAL G

TOTAL

WATER

salts and acid

ADDITIONS

finings · nutrient · spice · fruit

ADDITION

AMOUNT

WHEN

MASH PH

SPARGE PH

MASH AND BOIL

```
steps · volumes · boil
```

FERMENT PLAN

pitch · primary · rise · rest · crash

STEP

L

°C

MIN

YEAST

OTY

STAGE

°C

UNTIL / NOTES

BEER BATCH 10 : LOG

BEER BATCH 10 : LOG

PACKAGING

METHOD	DATE	VOL CO2	PSI / G	VOLUME L
--------	------	---------	---------	----------

TASTING

LESSONS FOR NEXT TIME

BATCH SIZE L

EBC

malt · sugar · adjuncts · total on the last line

%

write the stage over each column: 60 · 10 · WP 80 · DH d3

TOTAL G

TOTAL

finings · nutrient · spice · fruit

WHEN

pitch · primary · rise · rest · crash

OTY

UNTIL / NOTES

BEER

BATCH 11 · LOG

PACKAGING

METHOD	DATE	VOL CO2	PSI / G	VOLUME L
--------	------	---------	---------	----------

TASTING

LESSONS FOR NEXT TIME

12

BREW DATE

STYLE

BATCH SIZE L

OG

FG

ABV %

IBU

EBC

FERMENTABLES

malt · sugar · adjuncts · total on the last line

KG / G

FERMENTABLE

%

HOPS

write the stage over each column: 60 · 10 · WP 80 · DH d3

HOP

TOTAL G

TOTAL

WATER

salts and acid

ADDITIONS

finings · nutrient · spice · fruit

ADDITION

AMOUNT

WHEN

MASH PH

SPARGE PH

MASH AND BOIL

```
steps · volumes · boil
```

FERMENT PLAN

pitch · primary · rise · rest · crash

STEP

L

°C

MIN

YEAST

OTY

STAGE

°C

UNTIL / NOTES

BEER

BATCH 12 · LOG

PACKAGING

METHOD	DATE	VOL CO2	PSI / G	VOLUME L
--------	------	---------	---------	----------

TASTING

LESSONS FOR NEXT TIME

13

BATCH SIZE L

EBC

malt · sugar · adjuncts · total on the last line

%

write the stage over each column: 60 · 10 · WP 80 · DH d3

TOTAL G

TOTAL

finings · nutrient · spice · fruit

WHEN

SPARGE PH

pitch · primary · rise · rest · crash

OTY

UNTIL / NOTES

BEER BATCH 13 · LOG

BATCH 13 · LOG

PACKAGING

METHOD	DATE	VOL CO2	PSI / G	VOLUME L
--------	------	---------	---------	----------

TASTING

LESSONS FOR NEXT TIME

BREW DATE

STYLE

BATCH SIZE L

OG

FG

ABV %

IBU

EBC

FERMENTABLES

malt · sugar · adjuncts · total on the last line

KG / G

FERMENTABLE

%

HOPS

write the stage over each column: 60 · 10 · WP 80 · DH d3

HOP

TOTAL G

TOTAL

WATER

salts and acid

ADDITIONS

finings · nutrient · spice · fruit

ADDITION

AMOUNT

WHEN

MASH PH

SPARGE PH

MASH AND BOIL

```
steps · volumes · boil
```

FERMENT PLAN

pitch · primary · rise · rest · crash

STEP

L

°C

MIN

YEAST

OTY

STAGE

°C

UNTIL / NOTES

BEER

BATCH 14 · LOG

PACKAGING

METHOD	DATE	VOL CO2	PSI / G	VOLUME L
--------	------	---------	---------	----------

TASTING

LESSONS FOR NEXT TIME

BATCH SIZE L

EBC

malt · sugar · adjuncts · total on the last line

%

write the stage over each column: 60 · 10 · WP 80 · DH d3

TOTAL G

TOTAL

finings · nutrient · spice · fruit

WHEN

SPARGE PH

pitch · primary · rise · rest · crash

QTY

UNTIL / NOTES

BEER

BATCH 15 · LOG

PACKAGING

METHOD	DATE	VOL CO2	PSI / G	VOLUME L
--------	------	---------	---------	----------

TASTING

LESSONS FOR NEXT TIME

BREW DATE

STYLE

BATCH SIZE L

OG

FG

ABV %

IBU

EBC

FERMENTABLES

malt · sugar · adjuncts · total on the last line

KG / G

FERMENTABLE

%

HOPS

write the stage over each column: 60 · 10 · WP 80 · DH d3

HOP

TOTAL G

TOTAL

WATER

salts and acid

ADDITIONS

finings · nutrient · spice · fruit

ADDITION

AMOUNT

WHEN

MASH PH

SPARGE PH

MASH AND BOIL

```
steps · volumes · boil
```

FERMENT PLAN

pitch · primary · rise · rest · crash

STEP

L

°C

MIN

YEAST

OTY

STAGE

°C

UNTIL / NOTES

BEER BATCH 16 · LOG

BEER BATCH 16 · LOG

PACKAGING

METHOD	DATE	VOL CO2	PSI / G	VOLUME L
--------	------	---------	---------	----------

TASTING

LESSONS FOR NEXT TIME

BREW DATE

STYLE

BATCH SIZE L

OG

FG

ABV %

IBU

EBC

FERMENTABLES

malt · sugar · adjuncts · total on the last line

KG / G

FERMENTABLE

%

HOPS

write the stage over each column: 60 · 10 · WP 80 · DH d3

HOP

TOTAL G

TOTAL

WATER

salts and acid

ADDITIONS

finings · nutrient · spice · fruit

ADDITION

AMOUNT

WHEN

MASH PH

SPARGE PH

MASH AND BOIL

```
steps · volumes · boil
```

FERMENT PLAN

pitch · primary · rise · rest · crash

STEP

L

°C

MIN

YEAST

OTY

STAGE

°C

UNTIL / NOTES

BEER

BATCH 17 · LOG

BEER BATCH 17 · LOG

PACKAGING

METHOD	DATE	VOL CO2	PSI / G	VOLUME L
--------	------	---------	---------	----------

TASTING

LESSONS FOR NEXT TIME

BREW DATE

STYLE

BATCH SIZE L

OG

FG

ABV %

IBU

EBC

FERMENTABLES

malt · sugar · adjuncts · total on the last line

KG / G

FERMENTABLE

%

HOPS

write the stage over each column: 60 · 10 · WP 80 · DH d3

HOP

TOTAL G

TOTAL

WATER

salts and acid

ADDITIONS

finings · nutrient · spice · fruit

ADDITION

AMOUNT

WHEN

MASH PH

SPARGE PH

MASH AND BOIL

```
steps · volumes · boil
```

FERMENT PLAN

pitch · primary · rise · rest · crash

STEP

L

°C

MIN

YEAST

OTY

STAGE

°C

UNTIL / NOTES

BEER

BATCH 18 · LOG

PACKAGING

METHOD	DATE	VOL CO2	PSI / G	VOLUME L
--------	------	---------	---------	----------

TASTING

LESSONS FOR NEXT TIME

BREW DATE

STYLE

BATCH SIZE L

OG

FG

ABV %

IBU

EBC

FERMENTABLES

malt · sugar · adjuncts · total on the last line

KG / G

FERMENTABLE

%

HOPS

write the stage over each column: 60 · 10 · WP 80 · DH d3

HOP

TOTAL G

TOTAL

WATER

salts and acid

ADDITIONS

finings · nutrient · spice · fruit

ADDITION

AMOUNT

WHEN

MASH PH

SPARGE PH

MASH AND BOIL

```
steps · volumes · boil
```

FERMENT PLAN

pitch · primary · rise · rest · crash

STEP

L

°C

MIN

YEAST

OTY

STAGE

°C

UNTIL / NOTES

BEER BATCH 19 · LOG

BATCH 19 · LOG

PACKAGING

METHOD	DATE	VOL CO2	PSI / G	VOLUME L
--------	------	---------	---------	----------

TASTING

LESSONS FOR NEXT TIME

20

BREW DATE

STYLE

BATCH SIZE L

OG

FG

ABV %

IBU

EBC

FERMENTABLES

malt · sugar · adjuncts · total on the last line

KG / G

FERMENTABLE

%

HOPS

write the stage over each column: 60 · 10 · WP 80 · DH d3

HOP

TOTAL G

TOTAL

WATER

salts and acid

ADDITIONS

finings · nutrient · spice · fruit

ADDITION

AMOUNT

WHEN

MASH PH

SPARGE PH

MASH AND BOIL

```
steps · volumes · boil
```

FERMENT PLAN

pitch · primary · rise · rest · crash

STEP

L

°C

MIN

YEAST

OTY

STAGE

°C

UNTIL / NOTES

BEER

BATCH 20 · LOG

BEER

BATCH 20 · LOG

PACKAGING

METHOD	DATE	VOL CO2	PSI / G	VOLUME L
--------	------	---------	---------	----------

TASTING

LESSONS FOR NEXT TIME

BREW DATE

STYLE

BATCH SIZE L

OG

FG

ABV %

IBU

EBC

FERMENTABLES

malt · sugar · adjuncts · total on the last line

KG / G

FERMENTABLE

%

HOPS

write the stage over each column: 60 · 10 · WP 80 · DH d3

HOP

TOTAL G

TOTAL

WATER

salts and acid

ADDITIONS

finings · nutrient · spice · fruit

ADDITION

AMOUNT

WHEN

MASH PH

SPARGE PH

MASH AND BOIL

```
steps · volumes · boil
```

FERMENT PLAN

pitch · primary · rise · rest · crash

STEP

L

°C

MIN

YEAST

OTY

STAGE

°C

UNTIL / NOTES

BEER

BATCH 21 · LOG

PACKAGING

METHOD	DATE	VOL CO2	PSI / G	VOLUME L
--------	------	---------	---------	----------

TASTING

LESSONS FOR NEXT TIME

BREW DATE

STYLE

BATCH SIZE L

OG

FG

ABV %

IBU

EBC

FERMENTABLES

malt · sugar · adjuncts · total on the last line

KG / G

FERMENTABLE

%

HOPS

write the stage over each column: 60 · 10 · WP 80 · DH d3

HOP

TOTAL G

TOTAL

WATER

salts and acid

ADDITIONS

finings · nutrient · spice · fruit

ADDITION

AMOUNT

WHEN

MASH PH

SPARGE PH

MASH AND BOIL

```
steps · volumes · boil
```

FERMENT PLAN

pitch · primary · rise · rest · crash

STEP

L

°C

MIN

YEAST

OTY

STAGE

°C

UNTIL / NOTES

BEER

BATCH 22 · LOG

BATCH 22 · LOG

PACKAGING

METHOD	DATE	VOL CO2	PSI / G	VOLUME L
--------	------	---------	---------	----------

TASTING

LESSONS FOR NEXT TIME

23

BREW DATE

STYLE

BATCH SIZE L

OG

FG

ABV %

IBU

EBC

FERMENTABLES

malt · sugar · adjuncts · total on the last line

KG / G

FERMENTABLE

%

HOPS

write the stage over each column: 60 · 10 · WP 80 · DH d3

HOP

TOTAL G

TOTAL

WATER

salts and acid

ADDITIONS

finings · nutrient · spice · fruit

ADDITION

AMOUNT

WHEN

MASH PH

SPARGE PH

MASH AND BOIL

```
steps · volumes · boil
```

FERMENT PLAN

pitch · primary · rise · rest · crash

STEP

L

°C

MIN

YEAST

QTY

STAGE

°C

UNTIL / NOTES

BEER

BATCH 23 · LOG

PACKAGING

METHOD	DATE	VOL CO2	PSI / G	VOLUME L
--------	------	---------	---------	----------

TASTING

LESSONS FOR NEXT TIME

BATCH SIZE L

EBC

malt · sugar · adjuncts · total on the last line

%

write the stage over each column: 60 · 10 · WP 80 · DH d3

TOTAL G

TOTAL

finings · nutrient · spice · fruit

WHEN

pitch · primary · rise · rest · crash

QTY

UNTIL / NOTES

BEER

BATCH 24 · LOG

PACKAGING

METHOD	DATE	VOL CO2	PSI / G	VOLUME L
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TASTING

LESSONS FOR NEXT TIME

NOTES

NOTES

NOTES

NOTES

NOTES

NOTES

NOTES



TRAIN EFFECT

<https://brews.traineffect.co.nz>