

## tropical rye saison

- Gravity **13.3 BLG**
- ABV **5.5 %**
- IBU **27**
- SRM **6**
- Style **Saison**

### Batch size

- Expected quantity of finished beer **22 liter(s)**
- Trub loss **5 %**
- Size with trub loss **24.2 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **29 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **19.6 liter(s)**
- Total mash volume **25.2 liter(s)**

### Steps

- Temp **67 C**, Time **75 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **19.6 liter(s)** of strike water to **73.7C**
- Add grains
- Keep mash **75 min** at **67C**
- Keep mash **5 min** at **76C**
- Sparge using **15 liter(s)** of **76C** water or to achieve **29 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	3 kg (53.6%)	81 %	4
Grain	Pszeniczny	1 kg (17.9%)	85 %	4
Grain	Żytni	1 kg (17.9%)	85 %	8
Grain	Płatki owsiane	0.5 kg (8.9%)	85 %	3
Grain	Strzegom Karmel 300	0.1 kg (1.8%)	70 %	299

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Waimea	15 g	60 min	17.4 %
Boil	WAI-ITI	25 g	10 min	2.8 %
Boil	Rakau (NZ)	25 g	0 min	10.7 %
Dry Hop	WAI-ITI	25 g	5 day(s)	2.8 %
Dry Hop	Waimea	15 g	5 day(s)	17.4 %
Dry Hop	Rakau (NZ)	10 g	5 day(s)	10.7 %

### Yeasts

Name	Type	Form	Amount	Laboratory
------	------	------	--------	------------

Mangrove Jack's M29 French Saison	Ale	Dry	10 g	Mangrove Jack's
--------------------------------------	-----	-----	------	-----------------

### Extras

Type	Name	Amount	Use for	Time
Fining	mech irlandzki	5 g	Boil	10 min