

## sezon na raj

---

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **28**
- SRM **7**
- Style **Saison**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **21 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **25.3 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **13.2 liter(s)**
- Total mash volume **17.6 liter(s)**

### Steps

- Temp **64 C**, Time **20 min**
- Temp **72 C**, Time **45 min**
- Temp **76 C**, Time **5 min**

### Mash step by step

- Heat up **13.2 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **20 min** at **64C**
- Keep mash **45 min** at **72C**
- Keep mash **5 min** at **76C**
- Sparge using **16.5 liter(s)** of **76C** water or to achieve **25.3 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Pilzneński	2 kg (45.5%)	81 %	4
Grain	Monachijski	1 kg (22.7%)	80 %	16
Grain	Żytni	1 kg (22.7%)	85 %	8
Grain	Weyermann Caramunich 3	0.2 kg (4.5%)	76 %	150
Grain	Weyermann - Carapils	0.2 kg (4.5%)	78 %	4

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	lunga	15 g	60 min	11 %
Boil	Saaz (Czech Republic)	20 g	20 min	4.5 %
Boil	Simcoe	10 g	5 min	13.2 %

### Yeasts

Name	Type	Form	Amount	Laboratory
FM21 Odkrycie sezonu	Ale	Slant	150 ml	Fermentum Mobile

## Extras

Type	Name	Amount	Use for	Time
Spice	skórki cytrusów	20 g	Boil	15 min
Spice	liście kaffiru	1 g	Secondary	2 day(s)