Już polane stoi żyto

- Gravity **13.1 BLG**
- ABV **5.3 %**
- IBU **14**
- SRM **4.9**
- Style **Roggenbier**

Batch size

- Expected quantity of finished beer **25 liter(s)**
- Trub loss **5 %**
- Size with trub loss **26.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **31.7 liter(s)**

Mash information

- Mash efficiency **73 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **19.5 liter(s)**
- Total mash volume **26 liter(s)**

Steps

- Temp **52 C**, Time **10 min**
- Temp **62 C**, Time **30 min**
- Temp **72 C**, Time **30 min**

Mash step by step

- Heat up **19.5 liter(s)** of strike water to **57.3C**
- Add grains
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **62C**
- Keep mash **30 min** at **72C**
- Sparge using **18.7 liter(s)** of **76C** water or to achieve **31.7 liter(s)** of wort

Fermentables

Type	Name	Amount	Yield	EBC
Grain	Żytni	3.5 kg *(53.8%)*	85 %	8
Grain	Viking Pale Ale malt	3 kg *(46.2%)*	80 %	5

Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka	15 g	60 min	10 %
Boil	Saaz (Czech Republic)	10 g	10 min	4.5 %
Boil	Saaz (Czech Republic)	10 g	0 min	4.5 %

Yeasts

Name	Type	Form	Amount	Laboratory
T-54	Wheat	Dry	11 g	fermentis

Recipe has been printed via **BREWNESS.com** - a complex online solution for homebrewers to track brewing process easily.