

## #110 A może zboże pomoże, o boże?

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **20**
- SRM **4.2**
- Style **Specialty Beer**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **6 %**
- Size with trub loss **22.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **6 %/h**
- Boil size **24 liter(s)**

### Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.38 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **18.2 liter(s)**

### Steps

- Temp **44 C**, Time **10 min**
- Temp **52 C**, Time **10 min**
- Temp **66 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **75.6 C**, Time **1 min**

### Mash step by step

- Heat up **14 liter(s)** of strike water to **47.6C**
- Add grains
- Keep mash **10 min** at **44C**
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **75.6C**
- Sparge using **14.2 liter(s)** of **76C** water or to achieve **24 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Vienna Malt	2.2 kg (53%)	79 %	7
Grain	Viking Wheat Malt	1.15 kg (27.7%)	83 %	5
Grain	Słód z płaskurki	0.2 kg (4.8%)	80 %	6.5
Grain	Słód owsiany	0.2 kg (4.8%)	61 %	5
Grain	Słód orkiszowy	0.2 kg (4.8%)	80 %	4
Grain	Słód żytni	0.2 kg (4.8%)	85 %	9

### Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Marynka PL	15 g	60 min	9.1 %
Aroma (end of boil)	Lubelski PL	15 g	10 min	5.4 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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Lallemand Belle Saison	Ale	Dry	11 g	Lallemand
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### Extras

Type	Name	Amount	Use for	Time
Flavor	Cytryna (skórka + sok) - 2 szt.	170 g	Boil	0 min
Flavor	Czerwony grapefruit (skórka + sok) - 2 szt.	640 g	Boil	0 min
Flavor	Limonka (skórka + sok) - 1 szt.	100 g	Boil	0 min
Flavor	Pomarańcza (skórka + sok) - 2 szt.	640 g	Boil	0 min
Flavor	Cytryna (skórka + sok) - 2 szt.	170 g	Bottling	---
Flavor	Czerwony grapefruit (skórka + sok) - 2 szt.	640 g	Bottling	---
Flavor	Limonka (skórka + sok) - 2 szt.	200 g	Bottling	---
Flavor	Trawa cytrynowa	150 g	Bottling	---