

# Hefe na wakacjach w USA

- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **28**
- SRM **4.5**
- Style **American Wheat or Rye Beer**

## Batch size

- Expected quantity of finished beer **12 liter(s)**
- Trub loss **6 %**
- Size with trub loss **13.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **15 %/h**
- Boil size **16.7 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **9 liter(s)**
- Total mash volume **12 liter(s)**

## Steps

- Temp **44 C**, Time **100 min**
- Temp **64 C**, Time **45 min**
- Temp **72 C**, Time **15 min**
- Temp **78 C**, Time **10 min**

## Mash step by step

- Heat up **9 liter(s)** of strike water to **48C**
- Add grains
- Keep mash **100 min** at **44C**
- Keep mash **45 min** at **64C**
- Keep mash **15 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **10.7 liter(s)** of **76C** water or to achieve **16.7 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking pszeniczny jasny	1.5 kg (50%)	80 %	5
Grain	Viking Pilsner malt	1 kg (33.3%)	82 %	4
Grain	Carahell	0.25 kg (8.3%)	77 %	26
Grain	płatki owsiane	0.25 kg (8.3%)	75 %	3

## Hops

Use for	Name	Amount	Time	Alpha acid
First Wort	Lublin (Lubelski)	15 g	100 min	4 %
Whirlpool	Citra	15 g	30 min	12 %
Whirlpool	Cascade	7.5 g	30 min	6 %
Dry Hop	Cascade	7.5 g	7 day(s)	6 %
Dry Hop	Citra	15 g	7 day(s)	6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
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FM41 Gwoździe i Banany	Wheat	Liquid	15 ml	Fermentum Mobile
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## Notes

- Ekstrakt słodowy w proszku jasny 100 g  
Whirpool <80C 30min  
*May 7, 2019, 8:30 PM*