

# APA do koszenia trawy

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- Gravity **18.4 BLG**
- ABV **8 %**
- IBU **11**
- SRM **8**
- Style **American Pale Ale**

## Batch size

- Expected quantity of finished beer **23 liter(s)**
- Trub loss **5 %**
- Size with trub loss **25.3 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **30.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **27 liter(s)**
- Total mash volume **36 liter(s)**

## Steps

- Temp **67 C**, Time **60 min**
- Temp **78 C**, Time **40 min**
- Temp **100 C**, Time **60 min**

## Mash step by step

- Heat up **27 liter(s)** of strike water to **74.8C**
- Add grains
- Keep mash **60 min** at **67C**
- Keep mash **40 min** at **78C**
- Keep mash **60 min** at **100C**
- Sparge using **12.4 liter(s)** of **76C** water or to achieve **30.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Viking Pale Ale malt	4 kg (43.5%)	80 %	5
Grain	Viking Munich Malt	3.5 kg (38%)	78 %	18
Adjunct	Rice Hulls	0.2 kg (2.2%)	1 %	0
Grain	Viking Pilsner malt	1.5 kg (16.3%)	82 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Whirlpool	Citra	50 g	15 min	12 %
Dry Hop	Citra	50 g	3 day(s)	12 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Safale US-05	Ale	Slant	1000 ml	Fermentis