

## P.41 - Fruit APA

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- Gravity **11.9 BLG**
- ABV **4.8 %**
- IBU **30**
- SRM **4.2**
- Style **American Pale Ale**

### Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **30 min**
- Evaporation rate **11 %/h**
- Boil size **25.5 liter(s)**

### Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **14.9 liter(s)**
- Total mash volume **19.8 liter(s)**

### Steps

- Temp **64 C**, Time **60 min**
- Temp **78 C**, Time **1 min**

### Mash step by step

- Heat up **14.9 liter(s)** of strike water to **71.3C**
- Add grains
- Keep mash **60 min** at **64C**
- Keep mash **1 min** at **78C**
- Sparge using **15.6 liter(s)** of **76C** water or to achieve **25.5 liter(s)** of wort

### Fermentables

Type	Name	Amount	Yield	EBC
Grain	Oats, Flaked	1.8 kg (36.4%)	80 %	2
Grain	Weyermann - Pale Ale Malt	1.35 kg (27.3%)	85 %	7
Grain	Weyermann - Light Munich Malt	0.7 kg (14.1%)	82 %	14
Grain	Weyermann - Carapils	0.7 kg (14.1%)	78 %	4
Grain	Weyermann - Pilsner Malt	0.4 kg (8.1%)	81 %	5

### Hops

Use for	Name	Amount	Time	Alpha acid
Whirlpool	Cascade	30 g	20 min	5.8 %
Whirlpool	Mosaic	35 g	20 min	10 %
Whirlpool	Ella (AUS)	20 g	20 min	14.6 %
Whirlpool	Magnum	10 g	20 min	11.1 %
Dry Hop	Mosaic	200 g	5 day(s)	10 %

### Yeasts

Name	Type	Form	Amount	Laboratory
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Danstar - BRY-97	Ale	Dry	22 g	Danstar
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### Extras

Type	Name	Amount	Use for	Time
Flavor	Jagody	900 g	Primary	7 day(s)

### Notes

- Woda do zacierania 15 L.
    - Kwas mlekowy - 2,4 ml
    - Chlorek wapnia (CaCl<sub>2</sub>) - 1,5 g
    - Gips piwowarski (CaSO<sub>4</sub>) - 2,6 g
    - Sól epsom (MgSO<sub>4</sub>) - 2,3 g
  - Woda do wystadzania 24 l
    - Kwas mlekowy - 3,8 ml
    - Chlorek wapnia (CaCl<sub>2</sub>) - 2,4 g
    - Gips piwowarski (CaSO<sub>4</sub>) - 4,1 g
    - Sól epsom (MgSO<sub>4</sub>) - 3,6 g
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