

#13 Mango sour ale

- Gravity **11.7 BLG**
- ABV **4.7 %**
- IBU **18**
- SRM **3.1**
- Style **American Wheat or Rye Beer**

Batch size

- Expected quantity of finished beer **17 liter(s)**
- Trub loss **5 %**
- Size with trub loss **17.9 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **21.6 liter(s)**

Mash information

- Mash efficiency **83 %**
- Liquor-to-grist ratio **3.5 liter(s) / kg**
- Mash size **12.1 liter(s)**
- Total mash volume **15.5 liter(s)**

Steps

- Temp **62 C**, Time **40 min**
- Temp **72 C**, Time **20 min**
- Temp **78 C**, Time **10 min**

Mash step by step

- Heat up **12.1 liter(s)** of strike water to **68C**
- Add grains
- Keep mash **40 min** at **62C**
- Keep mash **20 min** at **72C**
- Keep mash **10 min** at **78C**
- Sparge using **13 liter(s)** of **76C** water or to achieve **21.6 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|----------------|---------------|-------|-----|
| Grain | Pilzneński | 1.83 kg (53%) | 81 % | 4 |
| Grain | Pszeniczny | 1 kg (29%) | 85 % | 4 |
| Grain | Płatki owsiane | 0.62 kg (18%) | 85 % | 3 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------|-------|--------|--------|------------|
| Boil | lunga | 15 g | 60 min | 9 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|-------|------|-------|--------|------------|
| us 05 | Ale | Slant | 150 ml | --- |

Extras

| Type | Name | Amount | Use for | Time |
|--------|---------------|--------|----------|----------|
| Flavor | Kwas mlekowy | 50 g | Bottling | --- |
| Flavor | Pulpa z mango | 850 g | Primary | 4 day(s) |

Po 3 dniach fermentacji burzliwej dodatek pulpy z mango