

# Christmas Ale

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- Gravity **16.6 BLG**
- ABV **7 %**
- IBU **37**
- SRM **10**
- Style **Christmas/Winter Specialty Spiced Beer**

## Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **5 %**
- Size with trub loss **22 liter(s)**
- Boil time **60 min**
- Evaporation rate **10 %/h**
- Boil size **26.4 liter(s)**

## Mash information

- Mash efficiency **75 %**
- Liquor-to-grist ratio **3 liter(s) / kg**
- Mash size **22.5 liter(s)**
- Total mash volume **30 liter(s)**

## Steps

- Temp **55 C**, Time **15 min**
- Temp **68 C**, Time **45 min**

## Mash step by step

- Heat up **22.5 liter(s)** of strike water to **60.8C**
- Add grains
- Keep mash **15 min** at **55C**
- Keep mash **45 min** at **68C**
- Sparge using **11.4 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

| Type  | Name                        | Amount        | Yield | EBC |
|-------|-----------------------------|---------------|-------|-----|
| Grain | Weyermann - Pale Ale Malt   | 6 kg (80%)    | 75 %  | 6   |
| Grain | Weyermann - Dark Wheat Malt | 1 kg (13.3%)  | 75 %  | 16  |
| Grain | Caramel/Crystal Malt - 20L  | 0.5 kg (6.7%) | 70 %  | 120 |

## Hops

| Use for             | Name              | Amount | Time   | Alpha acid |
|---------------------|-------------------|--------|--------|------------|
| Boil                | Centennial        | 5 g    | 60 min | 10.5 %     |
| Boil                | Falconer's Filght | 5 g    | 60 min | 11 %       |
| Boil                | Crystal           | 5 g    | 60 min | 4.5 %      |
| Boil                | Cascade           | 5 g    | 60 min | 6 %        |
| Boil                | Centennial        | 10 g   | 15 min | 10.5 %     |
| Boil                | Falconer's Filght | 10 g   | 15 min | 11 %       |
| Boil                | Crystal           | 10 g   | 15 min | 4.5 %      |
| Boil                | Cascade           | 10 g   | 15 min | 6 %        |
| Aroma (end of boil) | Centennial        | 35 g   | 2 min  | 10.5 %     |
| Aroma (end of boil) | Falconer's Filght | 35 g   | 2 min  | 11 %       |

|                     |                   |      |          |        |
|---------------------|-------------------|------|----------|--------|
| Aroma (end of boil) | Crystal           | 35 g | 2 min    | 4.5 %  |
| Aroma (end of boil) | Cascade           | 35 g | 2 min    | 6 %    |
| Dry Hop             | Centennial        | 40 g | 7 day(s) | 10.5 % |
| Dry Hop             | Falconer's Filght | 40 g | 7 day(s) | 11 %   |
| Dry Hop             | Crystal           | 40 g | 7 day(s) | 4.5 %  |
| Dry Hop             | Cascade           | 40 g | 7 day(s) | 6 %    |

## Yeasts

| Name         | Type | Form | Amount | Laboratory |
|--------------|------|------|--------|------------|
| Safale US-05 | Ale  | Dry  | 11.5 g | Fermentis  |

## Extras

| Type  | Name               | Amount | Use for | Time   |
|-------|--------------------|--------|---------|--------|
| Spice | Gałka muszkatołowa | 3 g    | Boil    | 15 min |
| Spice | Kardamon           | 3 g    | Boil    | 15 min |
| Spice | Ziele angielskie   | 1 g    | Boil    | 15 min |
| Spice | Cynamon            | 4 g    | Boil    | 15 min |
| Spice | Imbir              | 2 g    | Boil    | 15 min |