

#110 A może zboże pomoże, o boże?

- Gravity **11.2 BLG**
- ABV **4.5 %**
- IBU **20**
- SRM **4.2**
- Style **Specialty Beer**

Batch size

- Expected quantity of finished beer **20 liter(s)**
- Trub loss **6 %**
- Size with trub loss **22.4 liter(s)**
- Boil time **60 min**
- Evaporation rate **6 %/h**
- Boil size **24 liter(s)**

Mash information

- Mash efficiency **80 %**
- Liquor-to-grist ratio **3.38 liter(s) / kg**
- Mash size **14 liter(s)**
- Total mash volume **18.2 liter(s)**

Steps

- Temp **44 C**, Time **10 min**
- Temp **52 C**, Time **10 min**
- Temp **66 C**, Time **30 min**
- Temp **72 C**, Time **30 min**
- Temp **75.6 C**, Time **1 min**

Mash step by step

- Heat up **14 liter(s)** of strike water to **47.6C**
- Add grains
- Keep mash **10 min** at **44C**
- Keep mash **10 min** at **52C**
- Keep mash **30 min** at **66C**
- Keep mash **30 min** at **72C**
- Keep mash **1 min** at **75.6C**
- Sparge using **14.2 liter(s)** of **76C** water or to achieve **24 liter(s)** of wort

Fermentables

| Type | Name | Amount | Yield | EBC |
|-------|--------------------|-----------------|-------|-----|
| Grain | Viking Vienna Malt | 2.2 kg (53%) | 79 % | 7 |
| Grain | Viking Wheat Malt | 1.15 kg (27.7%) | 83 % | 5 |
| Grain | Słód z płaskurki | 0.2 kg (4.8%) | 80 % | 6.5 |
| Grain | Słód owsiany | 0.2 kg (4.8%) | 61 % | 5 |
| Grain | Słód orkiszowy | 0.2 kg (4.8%) | 80 % | 4 |
| Grain | Słód żytni | 0.2 kg (4.8%) | 85 % | 9 |

Hops

| Use for | Name | Amount | Time | Alpha acid |
|---------------------|-------------|--------|--------|------------|
| Boil | Marynka PL | 15 g | 60 min | 9.1 % |
| Aroma (end of boil) | Lubelski PL | 15 g | 10 min | 5.4 % |

Yeasts

| Name | Type | Form | Amount | Laboratory |
|------|------|------|--------|------------|
|------|------|------|--------|------------|

| | | | | |
|------------------------|-----|-----|------|-----------|
| Lallemand Belle Saison | Ale | Dry | 11 g | Lallemand |
|------------------------|-----|-----|------|-----------|

Extras

| Type | Name | Amount | Use for | Time |
|--------|---|--------|----------|-------|
| Flavor | Cytryna (skórka + sok) - 2 szt. | 170 g | Boil | 0 min |
| Flavor | Czerwony grapefruit (skórka + sok) - 2 szt. | 640 g | Boil | 0 min |
| Flavor | Limonka (skórka + sok) - 1 szt. | 100 g | Boil | 0 min |
| Flavor | Pomarańcza (skórka + sok) - 2 szt. | 640 g | Boil | 0 min |
| Flavor | Cytryna (skórka + sok) - 2 szt. | 170 g | Bottling | --- |
| Flavor | Czerwony grapefruit (skórka + sok) - 2 szt. | 640 g | Bottling | --- |
| Flavor | Limonka (skórka + sok) - 2 szt. | 200 g | Bottling | --- |
| Flavor | Trawa cytrynowa | 150 g | Bottling | --- |