

# Candy Orange IPA

- Gravity **11.4 BLG**
- ABV **4.6 %**
- IBU **11**
- SRM **3.3**

## 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 **3.5 liter(s) / kg**
- Mash size **16.6 liter(s)**
- Total mash volume **21.4 liter(s)**

## Steps

- Temp **71 C**, Time **60 min**

## Mash step by step

- Heat up **16.6 liter(s)** of strike water to **78.3C**
- Add grains
- Keep mash **60 min** at **71C**
- Sparge using **14.6 liter(s)** of **76C** water or to achieve **26.4 liter(s)** of wort

## Fermentables

Type	Name	Amount	Yield	EBC
Grain	Strzegom Pilzniejszy	3.16 kg (66.5%)	80 %	4
Grain	Oats, Flaked	0.53 kg (11.2%)	80 %	2
Grain	Corn, Flaked	0.53 kg (11.2%)	80 %	2
Grain	Wheat, Flaked	0.53 kg (11.2%)	77 %	4

## Hops

Use for	Name	Amount	Time	Alpha acid
Boil	Citra	8.42 g	60 min	12 %
Aroma (end of boil)	Citra	88.42 g	0 min	12 %
Aroma (end of boil)	Amarillo / Lemon drops	29.47 g	0 min	9.5 %
Dry Hop	Citra	29.47 g	---	12 %
Dry Hop	Lemon drop	29.47 g	---	4.6 %

## Yeasts

Name	Type	Form	Amount	Laboratory
Mangrove Jack's M44 US West Coast	Ale	Slant	105.26 ml	Mangrove Jack's

## Extras

Type	Name	Amount	Use for	Time
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Flavor	Skarmelizowane skórki z 4 pomarańczy i 1 cytryny	31.58 g	Secondary	---
Flavor	karmel z karmelizowania pomarańczy	31.58 g	Boil	60 min

## Notes

- Citra (3 oz) & Lemon Drop (1 oz) hopstand after completing the boil and cooling the wort below 76,6 C.

### Grains

After heating the water to strike temp, we inserted the grain basket in our kettle and added the following grains to the grain basket:

2 Row Pilsner (2.0 SRM) - 6lbs

Flaked Oats (1.0 SRM) - 1lbs

Flaked Corn (1.7 SRM) - 1lb

Flaked Wheat (1.6 SRM) - 1lb

### Mashing

We mashed at 160F for 60 mins. We mashed at a bit higher temperature than we have in the past for this style of beer. The goal was to increase beta amylase activity, which should boost the amount of unfermentable sugar, giving the beer a bit more sweetness and body.

### Citrus Zest

While mashing, we worked on processing some citrus zest. We took the peel from 3 oranges and 1 lemon and blanched them. Here's a quick guide to blanching citrus fruit:

Add peels to pot of cold water (enough water to cover peels)

Heat water to a boil

As soon as boil starts, remove from heat, strain peels, and dump water.

Add more cold water to pot along with strained peels

Begin process again.

Repeat this entire process 3 times and make sure to remove the pot from the heat and strain the fruit as soon as a boil is reached. This process reduces the bitterness of the fruit. However, if you leave the peels boil, bitterness will actually increase.

### Making Candied Citrus Peel

After blanching we moved on to creating candied peels. To do this we made some simple syrup by dissolving 400 grams of sugar in 400 grams of water (a 1 to 1 ratio). We then added the peels and simmered for 45 minutes. After that we put the peels in a food dehydrator and let them sit on low heat for about 24 hours.

### Boiling / Hops

We boiled for 60 minutes and added the following hops, etc:

Citra (0.25 oz) at 60 minutes (the start of the boil)

Citra (3 oz) & Lemon Drop (1 oz) hopstand after completing the boil and cooling the wort below 170F.

Simple Syrup was also added with the hopstand hops.

### Fermentation

After leaving the hopstand hops hang out for 20 minutes, we chilled the wort to 68F and added it to a sanitized bucket. We pitched some yeast and let it chill for half a week then added another ounce of citra and an additional ounce of lemon drop hops. We also added candied orange peel at this time. Fermentation kicked off again (because of the sugar in the candied orange peels) and finished a few days later. California Ale yeast.

### Additional Benchmarks

Starting Gravity: 1.046

Final Gravity: 1.015

ABV: 4.07%

### Tasting Notes

This beer is one of the best we've brewed. It was super balanced and had a perfect blend of bitterness, hops flavor, and sweetness. The lemon drop hops and orange made for a very pleasant aroma. It tasted like a light citrus IPA, but the orange flavor came through nicely. It was present but not at all overpowering. We really liked the balance of sweet and bitterness as well. We rate this recipe 10/10 and highly recommend brewing it.

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