

Late and Dry hopping schedules in commercial IPA brewing, scaled to 5 gallon homebrew recipes.

IPA	ABV%	Late total (oz.)	Late hopping varieties (oz.)	Dry total (oz.)	Dry hopping varieties (oz.)	Dry hopping contact time	Source
Pliny the Elder	8.1%	3.5	1 Centennial, 2.50 Simcoe	3.75	Columbus, Centennial, Simcoe, 1.25 ea.	3/4 12-14 days, 1/4 5 days	Zymurgy, July/August 2009 & 2010
Union Jack	7.5%	3.5	Centennial, Cascade 1.75 ea.	6	2.5 Cascade, 2.5 Centennial, 0.5 Simcoe, 0.5 Amarillo	1/2 7 days, 1/2 3 days	CYBI
Sculpin	7.0%	1	Amarillo	3	1 Simcoe, 2 Amarillo	7 days	NHC handout 2009, Homebrew Mart "North Star"
Racer 5	7.0%	1	0.5 Columbus, 0.5 Cascade	1.5	Amarillo, Columbus, Centennial. 0.5 ea.	2 weeks?	Zymurgy, July/August 2010
Maharaja	10.5%	4	2 Centennial, 2 Simcoe	9	4.5 Simcoe, 2.25 Centennial, 2.25 Chinook	2 weeks?	Zymurgy, July/August 2009
West Coast IPA	7.3%	1	0.5 Columbus, 0.5 Simcoe	2	0.5 Amarillo, 0.5 Centennial, 0.5 Columbus, 0.5 Simcoe	2 weeks?	CYBI
IPAX	6.7%	2	0.75 Columbus, 0.75 Simcoe	2.6	1.5 Columbus, 1.1 Simcoe	10 days	From the brewer
Denoginizer	9.8%	2.1	1.20 Falconer's Flight, .90 Cascade	5.2	2.6 Citra, 1.4 Falconer's Flight, 1.2 Cascade	10 days(?)	From the brewer

Links to other presentations and resources:

- American Hop Dry hopping flavor characteristics: <http://www.destroy.net/brewing/hopref-052010.pdf>
- Brewing Network Double IPA presentation slides: <http://www.destroy.net/brewing/IPA.pdf>
- Hops presentation for BJCP study group: <http://www.destroy.net/brewing/BJCP2009-hops.pdf>

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American IPA foundation recipe

Based on Dankness/Citrus Bomb IPA Recipe,
1.067-1.010. 70 IBU. 7.6% ABV

Grain/Extract/Sugar

%	Name	Origin	SRM
85	American 2-row	America	2
10	Pilsener or Munich	Belgium/Germany	2
2	Simpsons Caramalt	England	30-37
3	Crystal 15L	America	15

Mash Schedule

Rest	Temp	Time
Saccharification Rest:	150	60 Min
Mash-out Rest:	165	15 Min
Sparge:	165	Varies

Kettle Hops

Name	IBU	Boil Time
Magnum	25	90 min
CTZ	35	30 min
Cascade or Centennial or Citra	3oz. per 5 gal.	1 min

Yeast and Fermentation

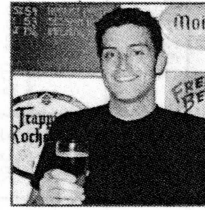
Use Whirlfloc at 15 minutes left in boil.
Yeast nutrient: Servomyces at 10 minutes left in boil.

White Labs WLP001/Wyeast 1056
Begin an active starter 18-24 hours before pitching.
Pitch at 65F. Ferment at 65F for 7 days.
Finish out at 68F for 2 days.
9 day fermentation total.
Pitch at 65F. Finished out at 68F. 9 day fermentation total.

Dry Hop: 3oz. hops per 5 gallons of your choice. (see reverse for ideas)
5-7 days maximum.



CATEGORY 14: INDIA PALE ALE



387 Entries

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Anderson Valley
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KELSEY MCNAIR, San Diego, Calif.,
QUAFF

GOLD MEDAL

"Hop-Fu"
Imperial IPA

Ingredients for 14 U.S. gallons (53 L)

- 32.5 lb (14.74 kg) Rahr pale malt
- 1.4 lb (635 g) dextrin malt
- 8.0 oz (227 g) Briess 40° L crystal malt
- 1.0 oz (28 g) Chinook pellet hops, 10.9% alpha acid (FWH)
- 2.6 oz (75 g) Warrior pellet hops, 15.8% alpha acid (60 min)
- 1.8 oz (51 g) Tomahawk, F-10 Variety pellet hops, 17.6% alpha acid (30 min)
- 1.5 oz (42 g) Simcoe pellet hops, 13% alpha acid (10 min)
- 2.0 oz (56 g) Amarillo Gold pellet hops, 7.5% alpha acid (10 min)
- 2.0 oz (56 g) Simcoe pellet hops, 13% alpha acid (0 min)
- 2.0 oz (56 g) Amarillo Gold pellet hops, 10% alpha acid (0 min)
- 2.0 oz (56 g) Citra pellet hops, 13% alpha acid (0 min)
- 2.0 oz (56 g) Tomahawk, F-10 Variety pellet hops 16% alpha acid (0 min)
- 2.0 oz (56 g) Amarillo Gold pellet hops, 7.5% alpha acid (dry)
- 2.0 oz (56 g) Simcoe pellet hops, 13% alpha acid (dry)
- 4.0 oz (112 g) Citra pellet hops, 13% alpha acid (dry)
- 2.0 oz (56 g) Tomahawk, F-10 Variety pellet hops, 16% alpha acid (dry)
- Wyeast No. 1056 American ale yeast starter
- 2.6 vol. forced CO₂ to carbonate
- 15 g gypsum (mash)

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Original Specific Gravity: 1.067
Final Specific Gravity: 1.011
Boiling Time: 90 minutes