








Hop Variety	Alpha Acid Range %	Beta Acid Range %	Co-H as % of Alpha	Total Oils mls/100 gr.	Country of Origin
 Amarillo®	8.0 - 11.0	6.0 - 7.0	21 - 24	1.5 - 1.9	United States
Azacca®	14.0 - 16.0	4.0 - 5.5	38 - 45	1.6 - 2.5	United States
Cascade	4.5 - 7.0	4.8 - 7.0	33 - 40	0.7 - 1.4	United States
Cashmere	7.7 - 9.1	3.3 - 7.1	22 - 24	1.2 - 1.4	United States
Centennial	9.5 - 11.5	3.5 - 4.5	29 - 30	1.5 - 2.5	United States
Challenger	6.5 - 8.5	3.0 - 4.0	20 - 23	1.0 - 1.5	United States
Chinook	11.0 - 14.0	3.0 - 4.0	29 - 35	1.7 - 2.7	United States
Citra®	11.0 - 13.0	3.5 - 4.5	22 - 24	2.2 - 2.8	United States
Cluster	5.5 - 8.5	4.5 - 5.5	37 - 43	0.4 - 0.8	United States
Comet	9.0 - 12.0	3.0 - 6.0	40 - 45	1.4 - 3.3	United States
Crystal	3.5 - 5.5	4.5 - 6.5	20 - 26	0.8 - 2.1	United States
CTZ	14.5 - 16.5	4.0 - 5.0	28 - 32	2.0 - 3.0	United States
Ekuanot®	14.5 - 15.5	4.5 - 5.0	32 - 38	2.5 - 4.5	United States
El Dorado®	14.0 - 16.0	7.0 - 8.0	28 - 31	2.5 - 2.8	United States
Galena	11.5 - 13.5	7.2 - 8.7	36 - 40	0.9 - 1.3	United States
Idaho 7™	13.0 - 15.0	4.0 - 5.0	30 - 40	1.0 - 1.6	United States
Idaho Gem™	11.0 - 14.0	5.0 - 7.0	40 - 45	1.3 - 2.0	United States
Jarrylo®	15.0 - 17.0	6.0 - 7.5	34 - 37	3.6 - 4.3	United States
Liberty	3.0 - 5.0	3.0 - 4.0	24 - 30	0.6 - 1.8	United States
Mosaic®	11.5 - 13.5	3.2 - 3.9	24 - 26	1.0 - 1.5	United States
Mount Hood	4.0 - 7.0	5.0 - 8.0	21 - 23	1.6 - 3.4	United States
Nugget	11.5 - 14.0	3.0 - 5.8	22 - 30	1.8 - 2.2	United States
Pahto™	17.0 - 20.0	4.5 - 6.0	30 - 32	1.0 - 2.5	United States
Sabro™	12.0 - 16.0	4.0 - 7.0	20 - 24	2.5 - 3.5	United States
Sorachi Ace	11.0 - 12.5	6.5 - 7.0	23 - 26	2.0 - 2.8	United States
Sterling	6.0 - 9.0	4.0 - 6.0	22 - 28	1.3 - 1.9	United States
Summit™	15.0 - 18.0	4.0 - 6.0	26 - 33	1.5 - 2.5	United States
Tettnang	4.0 - 5.5	3.0 - 5.0	22 - 28	0.5 - 0.9	United States
Warrior®	14.5 - 16.5	4.3 - 5.3	22 - 26	1.3 - 1.7	United States
Willamette	4.0 - 6.0	3.0 - 4.5	30 - 35	1.0 - 1.5	United States
 Australian Galaxy™	13.5 - 15.0	5.8 - 6.0	33 - 35	2.4 - 4.0	Australia
Australian Vic Secret™	14.0 - 17.0	6.1 - 7.8	51 - 56	2.2 - 2.8	Australia
 Czech Kazbek	5.0 - 8.0	4.0 - 6.0	35 - 40	0.9 - 1.8	Czech Republic
Czech Saaz	2.0 - 5.0	4.5 - 8.0	23 - 26	0.4 - 1.0	Czech Republic
 UK Boadicea	8.0 - 10.0	3.5 - 4.5	24 - 26	1.3 - 2.0	United Kingdom
UK Challenger	6.5 - 8.5	4.0 - 4.5	20 - 25	1.0 - 1.7	United Kingdom
UK East Kent Goldings	4.0 - 6.5	1.9 - 2.8	20 - 25	0.4 - 0.8	United Kingdom
UK Fuggle	3.0 - 5.6	2.0 - 3.0	25 - 30	0.7 - 1.4	United Kingdom
UK Progress	5.0 - 7.5	1.8 - 2.7	25 - 27	0.5 - 0.8	United Kingdom
UK Sovereign	4.5 - 6.5	2.1 - 3.1	26 - 30	0.6 - 1.0	United Kingdom
UK Target	9.5 - 12.5	4.3 - 5.7	35 - 40	1.2 - 1.4	United Kingdom
UK WGV	5.0 - 7.5	2.5 - 3.5	35 - 39	0.8 - 1.2	United Kingdom
 Ariana	10.0 - 13.0	4.5 - 6.0	40 - 42	1.6 - 2.4	Germany
Callista	2.0 - 5.0	5.0 - 10.0	15 - 21	0.7 - 1.5	Germany
Hallertau Blanc	9.0 - 11.0	4.0 - 7.0	28 - 35	1.2 - 2.2	Germany
Hallertau Magnum	11.0 - 16.0	5.0 - 7.0	21 - 29	1.6 - 2.6	Germany
Hallertau Mittlefrüh	3.0 - 5.5	3.0 - 5.0	18 - 28	0.7 - 1.3	Germany
Hallertau Tradition	4.0 - 7.0	3.0 - 6.0	24 - 30	1.0 - 1.4	Germany
Hersbrucker	1.5 - 4.0	2.5 - 6.0	17 - 25	0.5 - 1.0	Germany
Huell Melon	7.0 - 8.0	6.0 - 8.0	25 - 28	0.8 - 1.2	Germany
Mandarina Bavaria	7.0 - 10.0	4.0 - 7.0	31 - 35	1.5 - 2.2	Germany
Northern Brewer	6.0 - 10.0	3.0 - 5.0	27 - 32	1.6 - 2.1	Germany
Perle	4.0 - 8.0	2.5 - 4.5	29 - 35	0.5 - 1.5	Germany
Polaris	18.0 - 24.0	5.0 - 6.5	22 - 29	4.4 - 4.8	Germany
Saphir	2.0 - 4.5	4.0 - 7.0	12 - 17	0.8 - 1.4	Germany
Select	3.0 - 6.5	2.5 - 5.0	21 - 27	0.6 - 0.9	Germany
Tettnang	2.5 - 5.5	3.0 - 5.0	22 - 28	0.5 - 0.9	Germany
 Dr. Rudi	10.0 - 12.0	7.0 - 8.5	33 - 39	1.0 - 1.4	New Zealand
Green Bullet™	11.0 - 14.0	6.5 - 7.0	38 - 43	1.0 - 1.4	New Zealand
Kohatu™	6.0 - 7.0	5.0 - 6.0	21 - 23	1.0 - 1.5	New Zealand
Motueka™	6.5 - 7.5	5.0 - 5.5	28 - 30	0.8 - 1.0	New Zealand
Moutere™	17.5 - 19.5	8.0 - 10.0	24 - 28	1.5 - 1.9	New Zealand
Nelson Sauvin™	12.0 - 13.0	6.0 - 8.0	23 - 25	0.9 - 1.2	New Zealand
Pacific Gem™	13.0 - 15.0	7.0 - 9.0	37 - 40	1.0 - 1.3	New Zealand
Pacific Jade™	12.0 - 14.0	7.0 - 8.0	23 - 25	1.1 - 1.5	New Zealand
Pacifica™	5.0 - 6.0	5.0 - 6.0	24 - 26	0.9 - 1.2	New Zealand
Rakau™	9.0 - 11.0	5.0 - 6.0	23 - 25	1.8 - 2.2	New Zealand
Southern Cross™	11.0 - 14.0	5.0 - 6.0	25 - 28	1.4 - 1.8	New Zealand
Wai-iti™	2.5 - 3.5	4.5 - 5.5	22 - 24	1.4 - 1.8	New Zealand
Waimea™	16.0 - 19.0	7.0 - 9.0	22 - 24	1.8 - 2.3	New Zealand
Wakatu™	6.5 - 8.5	8.0 - 8.5	28 - 30	0.9 - 1.2	New Zealand
 Styrian Golding Celeia	3.0 - 6.0	2.0 - 6.0	26 - 29	0.6 - 3.6	Slovenia