

WELL HOPPED!












**HOP FACTORS & MERCHANTS
FROM FARM TO BREWER
SINCE 1865**

HOP VARIETY BROCHURE

www.wellhopped.com

HOP VARIETY LIST

Country of Origin	Variety	Approx. Alpha	Cohumulone as % of a.a.	Characteristics	Flavour Intensity
 UNITED KINGDOM VARIETIES	ADMIRAL	14 - 16	37 - 45	Resinous, orange, pine	8
	ARCHER®	4 - 6	32 - 38	Apricot, lime, floral	6
	BOADICEA	6 - 9	21 - 27	Spice, earthy, floral	6
	BRAMBLING CROSS	5 - 8	26 - 31	Lemon, blackcurrant, spice	8
	BULLION	8 - 11	35 - 40	Spice, blackcurrant, damson	7
	CASCADE	5 - 9	33 - 40	Floral, grapefruit, orange	7
	CHALLENGER	5 - 9	20 - 25	Spice, cedar, green tea	7
	CHINOOK	8 - 11	29 - 35	Lemon, grapefruit, pine	7
	EAST KENT GOLDINGS	5 - 8	26 - 32	Spice, honey, earthy	6
	ENDEAVOUR	5 - 9	30 - 34	Blackcurrant, spice, lemon	7
	ERNEST	5 - 7	50 - 55	Apricot, nectarine, spice	8
	FIRST GOLD	6 - 9	29 - 34	Orange, marmalade, spice	6
	FUGGLES	4 - 7	29 - 30	Grassy, mint, earthy	6
	FUSION (Experimental Blend)	6 - 8	N / A	Varies year on year	7
	GODIVA™	6 - 9	25 - 29	Tangerine, white grape, spice	8
	GOLDINGS	4 - 8	26 - 32	Spice, honey, earthy	6
	HARLEQUIN	9 - 12	27 - 31	Passion fruit, peach, pineapple	8
	JESTER®	7 - 9	23 - 28	Grapefruit, resinous, blackcurrant	8
	KEYWORTHS EARLY	5 - 7	30 - 35	Lemon, grapefruit, earthy	6
	KEYWORTHS MID-SEASON	5 - 8	46 - 52	Blackcurrant, lemon, earthy	6
	MINSTREL®	5 - 7	22 - 26	Spiced berries, orange, herbal	6
	MYSTIC	4 - 7	35 - 38	Blackcurrant, orange, passion fruit	7
	NORTHDOWN	6 - 9	24 - 29	Spice, cedar, pine	7
	OLICANA®	7 - 9	28 - 32	Mango, passion fruit, floral	7
	PHOENIX	9 - 12	24 - 28	Chocolate, caramel, spice	6
	PILGRIM	9 - 12	36 - 38	Spice, cedar, honey	6
	PILOT	7 - 10	28 - 33	Lemon, spice, earthy	6
	PIONEER	9 - 12	35 - 39	Lemon, cedar, herbal	8
	PROGRESS	5 - 8	27 - 36	Spice, honey, grassy	6
	SOVEREIGN	4 - 7	22 - 30	Grassy, floral, earthy	6
	SUSSEX	4 - 7	25 - 32	Herbal, blackberry, earthy	5
	TARGET	9 - 12	35 - 40	Pine, orange, cedar	8
WGV	5 - 8	32 - 43	Spice, floral, earthy	7	
 BELGIAN VARIETIES	CHALLENGER	5 - 9	20 - 25	Spice, cedar, green tea	7
	GOLDINGS	4 - 8	26 - 32	Spice, honey, earthy	6
	TARGET	9 - 12	35 - 40	Pine, orange, cedar	8
	WGV	5 - 8	32 - 43	Spice, floral, earthy	7
 CZECH VARIETIES	KAZBEK	5 - 8	35 - 40	Lemon, grapefruit, spice	8
	PREMIANT	6 - 10	18 - 23	Earthy, herbal, floral	5
	SAAZ	2 - 5	23 - 26	Floral, herbal, spice	6
	SLADEK	6 - 8	22 - 28	Floral, earthy, spice	6
 FRENCH VARIETIES	ARAMIS	6 - 8	21 - 22	Floral, grassy, black pepper	5
	BARBE ROUGE	7 - 10	24 - 28	Strawberry, redcurrant, floral	7
	BOUCLIER	7 - 9	20 - 25	Herbal, floral, grassy	4
	BREWERS GOLD	5 - 9	40 - 48	Spice, blackcurrant, lemon	8
	FUGGLES	4 - 7	29 - 30	Grassy, mint, earthy	6
	MISTRAL	6 - 9	29 - 39	Orange, herbal, pear	6
	SAVINJSKI GOLDING	2 - 4	25 - 30	Lemon, floral, earthy	6
	STRISSELSPALT	2 - 5	20 - 25	Herbal, floral, grassy	4
TRISKEL	3 - 5	20 - 23	Floral, spice, watercress	6	
 GERMAN VARIETIES	ARIANA	9 - 13	40 - 42	Blackcurrant, peach, pear	7
	BREWERS GOLD	5 - 9	40 - 48	Spice, blackcurrant, lemon	8
	HALLERTAU BLANC	9 - 12	22 - 26	White grape, lemongrass, passion fruit	8
	HERKULES	16 - 20	32 - 38	Pine, spice, black pepper	8
	HERSBRUCKER	2 - 4	17 - 25	Floral, herbal, earthy	6
	HUELL MELON	6 - 8	25 - 28	Melon, strawberry, apricot	8
	MAGNUM	11 - 15	21 - 29	Herbal, floral, pine	8
	MANDARINA BAVARIA	7 - 11	31 - 35	Mandarin, spice, lemon	7
	MITTELFRUH	3 - 6	18 - 28	Herbal, floral, grassy	6
	NORTHERN BREWER	5 - 9	27 - 32	Spice, resinous, herbal	6
	PERLE	6 - 9	29 - 35	Spice, cedar, orange	7
	POLARIS	19 - 23	22 - 28	Pine, spice, mint	6
	SAPHIR	2 - 4	12 - 17	Floral, herbal, tangerine	5
	SELECT	2 - 5	21 - 27	Herbal, floral, earthy	5
	TETTANG	4 - 7	22 - 28	Herbal, floral, earthy	5
TRADITION	4 - 7	24 - 30	Herbal, floral, grassy	5	
 POLISH VARIETIES	CHINOOK	11 - 15	29 - 35	Grapefruit, lemon, pine	8
	JUNGA	10 - 13	29 - 34	Blackcurrant, grapefruit, spice	7
	LUBELSKI	3 - 5	25 - 28	Floral, herbal, spice	5
	MAGNUM	11 - 15	21 - 29	Herbal, floral, pine	8
	MARYNKA	8 - 10	26 - 33	Herbal, floral, lemon	6
	PERLE	6 - 9	29 - 35	Cedar, spice, orange	7
	PULAWSKI	8 - 11	26 - 30	Herbal, lemon, clove	7
	SYBILLA	6 - 8	26 - 31	Lemon, pine, floral	7
TRADITION	4 - 7	24 - 30	Herbal, floral, grassy	5	

 SLOVENIAN VARIETIES	ATLAS	5 - 9	36 - 38	Lime, floral, pine	6
	AURORA	5 - 9	23 - 28	Spice, floral, lemongrass	7
	BOBEK	2 - 5	27 - 31	Lemon, pine, floral	7
	CELEIA	2 - 5	26 - 29	Lemon, lime, floral	7
	DANA	9 - 13	28 - 31	Floral, lemon, pine	7
	KRPAN (previously CHINOOK)	11 - 15	29 - 35	Grapefruit, lemon, pine	8
	SAVINJSKI GOLDING	2 - 4	25 - 30	Lemon, lime, earthy	6
	STYRIAN CARDINAL	8 - 10	31 - 37	Floral, lime, pineapple	7
	STYRIAN DRAGON	6 - 11	23 - 24	Passion fruit, lemon, melon	8
	STYRIAN EAGLE	12 - 17	20 - 23	Peach, floral, pine	8
	STYRIAN EUREKA (not to be confused with EUREKA!)	11 - 17	21 - 25	Redcurrant, floral, quince	6
	STYRIAN FOX	6 - 12	26 - 30	Blackcurrant, lemongrass, marjoram	7
	STYRIAN KOLIBRI	4 - 6	21 - 25	Blackcurrant, elderflower, green tea	7
	STYRIAN WOLF	13 - 18	22 - 23	Lemon, lemongrass, mango	8
	TOLAR (previously CASCADE)	5 - 9	33 - 40	Floral, lemon, lychees	8
	 NEW ZEALAND VARIETIES	CHINOOK	11 - 15	29 - 35	Grapefruit, citrus, lime
DR RUDI™		11 - 14	36 - 39	Lemongrass, pine, grassy	8
GREEN BULLET™		10 - 13	41 - 43	Pine, plum, black pepper	8
KOHATU™		5 - 7	18 - 23	Lime, pineapple, pine	8
MOTUEKA™		5 - 8	25 - 35	Lime, lemon, floral	9
MOUTERE™		17 - 20	24 - 28	Grapefruit, resinous, passion fruit	8
NELSON SAUVIN™		10 - 13	22 - 26	White grape, gooseberry, grapefruit	9
PACIFICA™		4 - 8	23 - 27	Floral, orange, herbal	6
PACIFIC GEM™		13 - 18	37 - 40	Blackberry, oak, pine	7
PACIFIC JADE™		12 - 14	22 - 26	Herbal, lemon, black pepper	8
RAKAU™		10 - 12	24 - 28	Apricot, passion fruit, pine	8
SOUTHERN CROSS™		11 - 14	25 - 28	Lemon, pine, herbal	7
STICKLEBRACKT		12 - 15	35 - 40	Pine, lemon, earthy	7
TAIHEKE™		5 - 9	33 - 40	Floral, lemon, grapefruit	8
WAI-ITI™		2 - 4	23 - 28	Mandarin, peach, lime	8
WAIMEA™		16 - 19	22 - 24	Orange, pine, resinous	9
WAKATU™	7 - 10	28 - 30	Vanilla, floral, lime	7	
 AMERICAN VARIETIES	AHTANUM®	5 - 8	30 - 35	Floral, lemon, pine	7
	AMARILLO®	7 - 11	21 - 24	Orange, peach, pink grapefruit	9
	APOLLO™	15 - 19	24 - 28	Resinous, pine, lemon	8
	AZACCA™	14 - 16	38 - 45	Mango, orange, pine	9
	BELMA®	9 - 12	28 - 35	Strawberry, melon, pineapple	7
	BRAVO™	14 - 18	29 - 34	Resinous, pine, plum	8
	CALYPSO™	11 - 14	40 - 42	Pear, apple, peach	8
	CASCADE	5 - 9	33 - 40	Lychees, floral, grapefruit	8
	CASHMERE	7 - 10	22 - 24	Peach, lemon, tangerine	8
	CENTENNIAL	7 - 12	29 - 30	Lemon, floral, resinous	9
	CHINOOK	11 - 15	29 - 35	Grapefruit, lemon, pine	9
	CITRA®	11 - 14	22 - 24	Mango, grapefruit, lime	9
	CLUSTER	6 - 9	37 - 43	Blackberry, spice, floral	6
	COLUMBUS	14 - 20	28 - 32	Lemon, resinous, black pepper	8
	COMET	9 - 11	40 - 45	Grapefruit, mango, pine	8
	CRYSTAL	3 - 6	20 - 26	Tangerine, lime, floral	6
	DELTA™	4 - 7	22 - 24	Lime, pineapple, earthy	5
	EKUANOT™	13 - 16	31 - 36	Papaya, lime, green pepper	8
	EL DORADO®	13 - 17	28 - 33	Pineapple, peach, melon	8
	EUREKA!™ (not to be confused with Eureka)	17 - 20	28 - 30	Pine, blackcurrant, grapefruit	8
	GALENA	10 - 14	36 - 40	Blackcurrant, spice, grapefruit	7
	IDAHO 7	9 - 12	30 - 40	Mango, pink grapefruit, pine	9
	JARRYLO®	15 - 17	34 - 37	Pear, banana, spice	7
	LEMONDROP™	5 - 7	28 - 34	Lemon, mint, green tea	7
	LIBERTY	3 - 5	24 - 30	Spice, lemon, herbal	6
	MOSAIC®	10 - 14	24 - 26	Blueberry, mango, passion fruit	9
	MOUNT HOOD	4 - 7	21 - 23	Herbal, grapefruit, lemon	6
	NUGGET	10 - 14	22 - 30	Spice, pear, herbal	7
	PEKKO®	14 - 16	27 - 30	Mint, melon, pineapple	8
	SIMCOE®	11 - 15	15 - 20	Pine, grapefruit, passion fruit	9
SORACHI ACE	10 - 14	20 - 26	Lemon, coconut, dill	8	
STERLING	5 - 9	22 - 28	Lemon, floral, spice	6	
SUMMIT™	13 - 15	26 - 33	Pink grapefruit, tangerine, allium	8	
WARRIOR®	13 - 15	22 - 26	Resinous, herbal, pine	6	
WILLAMETTE	4 - 7	30 - 35	Blackcurrant, spice, floral	6	

ORGANIC VARIETIES	 BELGIUM	Cascade, Challenger, Fuggles, Goldings, Pilgrim, WGV
	 CZECH REPUBLIC	Saaz, Premiant
	 GERMANY	Brewers Gold, Hallertau Blanc, Hersbrucker, Magnum, Mandarina Bavaria, Mittelfruh, Opal, Perle, Polaris, Saphir, Spalt Select, Smaragd, Tradition
	 POLAND	Cascade, Magnat, Magnum, Marynka, Pulawski, Sybilla
	 NEW ZEALAND	Motueka™, Nelson Sauvin™, Pacific Gem™, Rakau™, Taiheke™, Wakatu™
	 UNITED KINGDOM (UK)	Challenger, First Gold, Sovereign
	 UNITED STATES (USA)	Ahtanum™, Azacca™, Cascade, Chinook, Citra®, El Dorado®, Jarrylo™, Palisade®, Simcoe®, Sterling

Charles Faram strongly recommends forward contracting your hops so we offer a forward contract service that allows you to order secured stock throughout the year. Visit www.charlesfaram.co.uk for more details.



It's a well-known fact that the tastes and fashions of beer change, and the thirst for a more varied beer experience and education is growing, so the importance that we hold on being able to help brewers create great beer means that our hops have to inspire and bring something new to the brewer and be viable to the grower.

The aim of our Hop Development Programme has been to find agronomically sound, exciting new varieties that will one day be produced commercially with the help of our own expertise and solid grower relationships.

Traditional

The first varieties from the programme to come through to farm trials were Archer® and Minstrel®, both hedgerow varieties and both with a classic, traditional aroma with a slight twist due to their hedgerow parent.

They are flying high in craft markets worldwide who are looking for more of the traditional flavours as beer styles to develop away from the high hits of the West Coast IPA style hops.

Changing

With changing tastes, naturally the aim of the programme then changed; as the "new world" hops became more popular in Europe the team concentrated on bringing in some

of these varieties to make crosses with the strong British rootstocks and create hybrids, something with the best of both worlds.

The best way to assess these varieties has been initially through the Charles Faram sensory panel but then later with the help of brewers who have given excellent feedback from brewing trials.

Best of both worlds

This phase had led to expanded farm trials of the varieties Jester®, Olicana®, Godiva™, Mystic and Harlequin, strong plants with "new world" aroma, excellent disease resistance and good yield. These hops have performed well beyond expectation after a further trial period. We aim to make them fully commercial varieties. What is extremely exciting is that there are more varieties coming through the programme which have new intense aromas and remarkable flavours.

British Hop Association Programme

Not content with just developing our own varieties Faram's has been involved with and sponsored the British Hop Association programme of new seedlings in their search for great new flavours.

The Future

The message is to definitely watch this space for other new varieties over the next couple of years.

Charles Faram Proudly Presents
THE WELLHOPPED WORLD SERIES
 2019 HOP AWARDS
Quality · Innovation · Passion

The Wellhopped World Series is Charles Faram's industry competition with some exciting twists.

Phase 1
 The AromaFest competition. To establish the best sample of new and commercial varieties from the Hop Development Programme

Phase 2
 A wave of collaborations between brewers and Charles Faram UK, USA and Canada using only the varieties from the Charles Faram Hop Development Programme.

Phase 3
 The beer competition. The collaborative brews will be among entries into the beer competition that is judged by brewers and industry peers.

ARCHER®	JESTER®	MINSTREL®	OLICANA®	HARLEQUIN	MYSTIC	GODIVA™
Apricot, lime, floral	Grapefruit, resinous, blackcurrant	Spiced berries, orange, herbal	Mango, passion fruit, floral	Passion fruit, peach, pineapple	Blackcurrant, orange, passion fruit	Tangerine, white grape, spice
4-6	7-9	5-7	7-9	9-12	4-7	6-9
32-38	23-28	22-26	28-32	27-31	35-38	25-29

The aroma and flavour of a hop helps the brewer to select the varieties to use in each style of beer.

Alpha %: Alpha acid is the measurement brewers use to calculate the amount of hops needed to achieve their target bitterness.

Cohumulone % (one of the main alpha acids): Low Cohumulone generally gives a smoother bitterness. High Cohumulone is a crisper, sharper bitterness.

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HOP FACTORS & MERCHANTS SINCE 1865

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