



HEMP SEED CATALOGUE

2024

DESIGNED TO SUCCEED

Performance-focused varieties

from seasoned innovators.

At Verve Seeds we specialize in hemp breeding, field testing, and certified seed sales of elite hemp varieties. We help develop and field test the latest and most innovative hemp genetics, to give hemp grain, fiber and cannabinoid producers dependable “fit for purpose” product performance.

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Designed For Success

Verve tailors seed varieties to your farm operation, supported by the largest hemp-breeding program in North America.

Full-Service Support

Our professional agronomists will guide you through your journey with hemp as you plan, plant, grow, and harvest your crop.

Trusted Quality

Our seed varieties are crafted to stringent North American standards, using protocols to ensure irreproachable quality that you can trust.

TRIAL RESEARCH DATA

Verve Seed Solutions Performance Trials

Objective

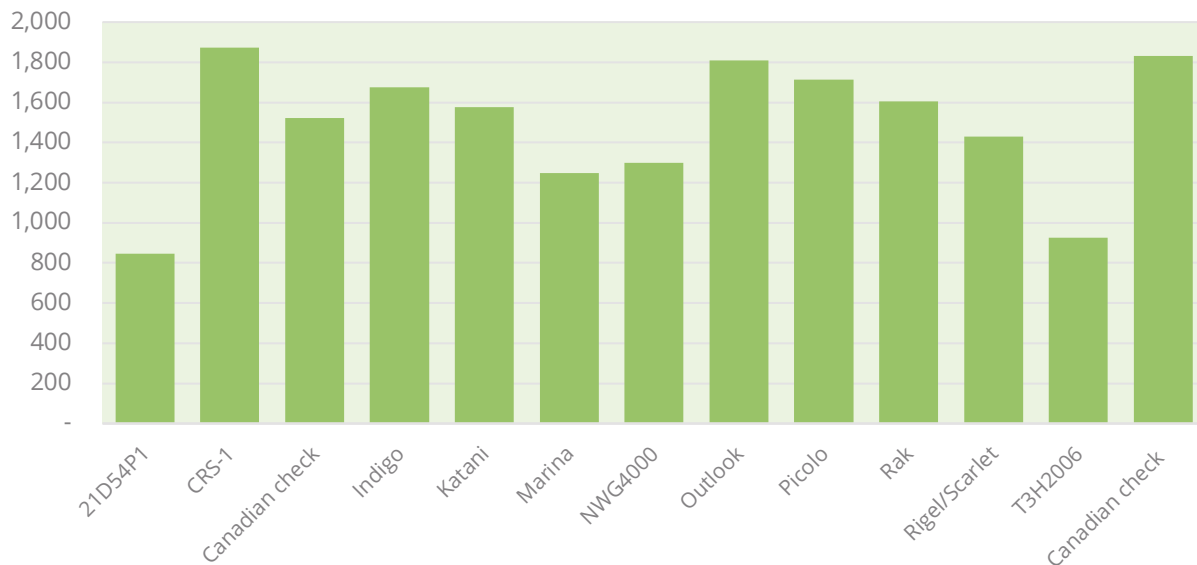
Verve Seed Solutions established a total of 6 yield performance trials across Western Canada. Site locations included Russell, (Mb), Lasalle (Mb), Carman (Mb), Winkler (Mb), Saskatoon (Sk) and Coaldale (Ab).

Each site was set up in a Randomized Complete Block Design with 4 replications. Seeding dates were from June 5 – June 15th 2022. Three sites were not included in the data due to high CV's from various factors (bird damage, harvest issues). The data outlined below is an average of Lasalle, Carman and Coaldale sites.

21D54P1 is a Fiber only cultivar that is expected be on the 2023 Health Canada List of Approved Cultivars (LOAC) this Spring. T3H2006 is a full season dual purpose F1 Hybrid variety that would benefit from an earlier seeding date.

Rak and Outlook are two new varieties with short stature for ease of harvest and large seed size. Commercial seed for these varieties will be available in very limited quantities for 2023.

Average Lbs/Acre across 3 Western Canada sites



2022 Dual Type: Fiber Yield (kg/ha dry) CHTA National Variety Test 2022

Name	Falher AB	Vegreville AB	Carberry MB	La Salle MB	Melita MB	MEAN
Scarlett	2625	6589	10747	6725	3950	6127
Visoka		11028		12425		-
CRS-1	1450	2990	9940	5150	3500	4606
Marina	3250	6739		8833		-

Plant Height (cm) (from ground to top of inflorescence 1 week prior to harvest (average of 5 measurements/plot))														
Name	Breton AB	Entwistle AB	Falher AB	Lethbridge AB	Vegreville AB	Arborg MB	Carberry MB	La Salle MB	Melita MB	Roblin MB	Indian Head SK	Cobden ON	St Hugues QU	MEAN
Scarlett	156		138	172	226	200	148	169	182	212		189	139	176
Visoka					260			210		282			218	242
CRS-1	139		129	132	189	171	147	159	171	179	172	140	116	154
Marina			160		233			200		239			174	201

*Source CHTA National Variety Test 2022



2024 GRAIN VARIETIES

CRS-1

Variety Purpose: Grain/Fiber

Variety Type: Open Pollinated

Description

CRS-1 is one of the most trialed varieties in Canada with well over 25 site years of data. CRS-1 can be utilized in a dual-production systems for fiber and grain, CRS-1 has often been used in organic production systems for additional weed competition thanks to its tall stature and impressive grain yields.

Applications

CRS-1 end use varies based upon where it is grown. Currently, it competes well as a fiber variety in the northern latitudes of Canada. In the USA, CRS-1 is not as tall, resulting in good harvestability for both organic and conventional systems.

CRS-1	
Origin	Canada
Seed Rate Grain	25-30 lbs/acre
Seed Rate Fiber	30-45 lbs/acre
Use	Grain/Fiber
Maturity (Canada – 50 degrees latitude)	~110+ days
CBD:THC Ratio	Between 10:1
Plant height (Canada - 50 degree latitude)	150-200 cm
Female to Male (average)	60% female
Growth Habit	Moderate Tall
CBD Average %	0.5%-2.7%
Oil Content	32.3%
Site Years of Data Collected	>25

Key Characteristics

- End uses: Grain and fiber
- Exceptional grain yielder
- Kernel weight: 20 grams/1000 seeds
- Time of flowering: 45-55 days after seeding
- Disparity of female flowering to male flowering: 8-10 days
- Registered in 2006
- National Variety Trial check variety



CFX-2

Variety Purpose: Grain/Fiber

Variety Type: Open Pollinated

Description

CFX-2 is a very popular variety used in organic systems in Canada and the US. The consistently uniform plant structure and excellent harvestability of CFX-2 are valuable traits recognized by both breeders and growers. Organic growers are especially drawn to this variety because of the superior vigour during establishment, tall stature that provides excellent weed control, and ability of the plant to scavenge nutrients when soil fertility is limited.

Applications

Growers operating on dryland systems in the southern part of Canada and mid to northern regions of the USA find that grain yields are strong thanks to a larger seed size and uniform plant structure.

CFX-2

Origin	Canada
Seed Rate Grain	25-30 lbs/acre
Seed Rate Fiber	30-45 lbs/acre
Use	Grain/Fiber
Maturity (Canada – 50 degrees latitude)	~110+ days
CBD:THC Ratio	Between 10:1
Plant height (Canada - 50 degree latitude)	130-150cm
Female to Male (average)	60% female
Growth Habit	Medium
CBD Average %	0.5%-2.7%
Oil Content	32.1
Years of Data Collected	10

Key Characteristics

- Registered in 2015
- Medium-size seed, dioecious variety
- End uses: food and fiber
- High grain yielder
- Kernel weight: 16 grams/TKW seeds
- Soil requirements: well-drained soils of medium texture are ideal
- Time of flowering: ~50 days from planting



Grandi

Variety Purpose: Flower/Grain

Variety Type: Open Pollinated

Description

Like Katani, Grandi has a slightly different flavour profile sought after by processors for making hemp milk. Short stature and excellent uniformity assists with ease of harvest. Large seed heads with good airflow lessens disease pressure and increases yield.

Applications

Growers operating on dryland systems in the southern part of Canada and mid to northern regions of the USA find that grain yields are strong thanks to a larger seed size and uniform plant structure.

Grandi	
Origin	Canada
Seed Rate Grain	25-30 lbs/acre]
Seed Rate Fiber	NA
Use	Grain/Flower
Maturity (Canada – 50 degrees latitude)	~105+ days
CBD:THC Ratio	Between 10:1
Plant height (Canada - 50 degree latitude)	80-130cm
Female to Male (average)	60% female
Growth Habit	Medium/Short
CBD Average %	0.5%-2.7%
Oil Content	31.9
Years of Data Collected	>10

Key Characteristics

- Registered in 2015
- Short Stature for ease of Harvest
- Medium-size seed, dioecious variety
- End uses: food
- High grain yielder
- Kernel weight: 15 grams/1000 seeds
- Soil requirements: well-drained soils of medium texture are ideal
- Time of flowering: ~50 days after seeding



Katani

Variety Purpose: Flower/Grain

Variety Type: Open Pollinated

Description

An early finisher with excellent harvestability. Katani is recognized for superior harvestability and modestly higher CBD levels than other grain varieties. This variety is best suited for the Northern USA and southern to mid-latitude growing areas in Canada.

Applications

Katani is the most versatile of our varieties, with excellent levels of high-quality cannabinoids and leading grain production. This variety has also been noted by our growers for excellent harvestability with fewer wrapping issues.

Katani	
Origin	Canada
Seed Rate Grain	25-30 lbs/acre
Seed Rate Fiber	NA
Use	Grain/Flower
Maturity (Canada – 50 degrees latitude)	~105+ days
CBD:THC Ratio	Between 10:1
Plant height (Canada - 50 degree latitude)	70-110cm
Female to Male (average)	60% female
Growth Habit	Medium/Short
CBD Average %	0.5%-2.7%
Oil Content	31.9
Site Years of Data Collected	>10

Key Characteristics

- Registered in 2015
- Medium-size seed, dioecious variety
- End uses: food and CBD
- High grain yielder
- Kernel weight: 15 grams/1000 seeds
- Time of flowering: ~50 days after seeding
- Disparity of female flowering to male flowering: 10 days



Picolo

Variety Purpose: **Flower/Grain**Variety Type: **Open Pollinated**

Description

The shortest of the single use grain varieties. Picolo is well suited to irrigated production.

Applications

The primary focus of Picolo is for a grain crop, as it has the shortest stature of all our varieties. Harvestability is excellent and works well under irrigation systems.

Picolo	
Origin	Canada
Seed Rate Grain	25-30 lbs/acre
Seed Rate Fiber	NA
Use	Grain/Flower
Maturity (Canada – 50 degrees latitude)	~105+ days
CBD:THC Ratio	6-12
Plant height (Canada - 50 degree latitude)	65-105cm
Female to Male (average)	60% female
Growth Habit	Short
CBD Average %	0.5%-2.7%
Oil Content	31.7
Years of Data Collected	5

Key Characteristics

- Registered in 2015
- Medium-size seed, dioecious variety
- End uses: food and CBD
- High grain yielder
- Kernel weight: 13 grams/1000 seeds
- Time of flowering: ~53 days after seeding
- Disparity of female flowering to male flowering: 10 days



Indigo

Variety Purpose: Grain/Flower/Fiber

Variety Type: Open Pollinated

Description

A grain variety with a twist. Indigo has purple flowers packed with grain. Indigo has a 110 day maturity.

Applications

Indigo’s main applications are for grain/food and flour.

Indigo	
Origin	Canada
Seed Rate Grain	25-30 lbs/acre
Seed Rate Fiber	NA
Use	Grain/Flower
Maturity (Canada – 50 degrees latitude)	~105+ days
CBD:THC Ratio (variable)	30:1
Plant height (Canada - 50 degree latitude)	100-150cm
Female to Male (average)	60% female
Growth Habit	Medium
CBD Average %	~3.5%
Years of Data Collected	2

Key Characteristics

- Moderate season maturity
- Large seed heads
- Day Neutral tendency



T3H2006

Variety Purpose: Flower/Grain/Fiber

Variety Type: Dioecious Hybrid

Description

T3H2006 is a F1 Hybrid dioecious and a great example of innovation and technical advancement in hemp breeding FBN, Verve and T3H2006 has been recently recognized with a top innovation award from Germination Magazine.

Applications

T3H2006 is a grain hybrid with increased content of cannabidiol (CBD) developed by the collaborative breeding efforts of Farmers Business Network and Verve Seed Solutions.

T3H2006	
Origin	Canada
Seed Rate Grain	20-25lbs/acre
Seed Rate Fiber	25-30 lbs/acre
Use	Grain/Flower/Fiber
Maturity (Canada – 50 degrees latitude)	120 + days
CBD:THC Ratio	30:1
Plant height (Canada - 50 degree latitude)	120-170cm
Female to Male (average)	60% female
Growth Habit	Uniform Upright Medium height
CBD Average %	7-9%
Commercial seed	Available 2024
Years of Data Collected	2

Key Characteristics

- Full season variety
- Hybrid vigour and uniformity
- Well suited for Precision Planters
- Excellent fiber yield
- Can be grown at 35+ degree Latitudes



Applications

Rak (New for 2024)

Variety Purpose: Grain

Variety Type: Open Pollinated

Description

Introducing our latest Open-Pollinated hemp variety from Verve Seed Solutions. This groundbreaking cultivar, standing at a moderate height of 5-6 feet, boasts generously sized seed heads, ensuring optimal grain yield. Engineered for superior seed shatter resistance, the harvesting process is streamlined for efficiency. With a focus on large, high-quality seeds, this variety exceeds industry standards. The strategic design of the seed heads not only maximizes airflow but also enhances disease resistance. Tolerant to herbicides and Group 2 herbicide residue, it offers flexibility in crop management. Elevate your hemp cultivation with this Open-Pollinated hybrid variety, a testament to our commitment to excellence in hemp farming.

Applications

Processors consistently praise Rak for its outstanding dehulling characteristics and impressive oil content, showcasing a smooth, buttery flavor profile that stands out in the industry. The combination of large seed heads and a compact stature contributes to a remarkably high harvest index, positioning Rak as one of the industry's top performers. Noteworthy for its early-season vigor and the ability to suppress weeds with substantial biomass, Rak proves itself as a proven winner in organic systems. Its versatility extends to performing exceptionally well under irrigation, making it a reliable choice for a wide range of cultivation practices. Choose Rak for a hemp variety that excels in dehulling, oil content, and overall agronomic performance across diverse agricultural settings.

	Rak
Origin	Canada
Seeding Rate lbs/acre	25-30
Use	Grain
Maturity at 50 Degree Latitude	110 Days
Plant Height at 50 Degree Latitude	130-160cm
Female to Male % (avg)	55% F
Growth Habit.	Moderate
CBD % (Avg)	.5-2.7%
Oil Content	31.7

Key Characteristics

- New Variety for 2024!
- Increased Herbicide tolerance
- Outstanding dehulling yields
- Top grain yield
- Very large seed size
- Early to Moderate maturity





2024 FIBER VARIETIES

Visoka

Variety Purpose: Fiber

Variety Type: Dioecious

Description

Visoka is a dioecious fiber variety that come from the partnership between Verve Seeds and the Institute of Field and Vegetable Crops in Novi Sadd Serbia. Visoka has unique fiber quality characteristics with excellent bast to hurd ratios.

Applications

Fiber/hurd are the main applications of Visoka.

Visoka	
Origin	Novi Sadd
Seed Rate Grain	NA
Seed Rate Fiber	30-45 lbs/acre
Use	Fiber
Maturity (Canada – 50 degrees latitude)	120 + days
CBD:THC Ratio	NA
Plant height (Canada - 50 degree latitude)	2.5-3.5 M+
Female to Male (average)	60% female
Growth Habit	Uniform Upright Very Tall
CBD Average %	NA
Commercial seed	Available 2024
Years of Data Collected	2

Key Characteristics

- Full season Fiber Variety
- Flowers first week of September
- Limited Seed for Trials in 2023
- Commercial seed available in 2024



Marina

Variety Name: Marina

Variety Purpose: Dual Purpose

Variety Type: Monoecious

Description

Marina is a Monoecious fiber variety that come from the partnership between Verve Seeds and the Institute of Field and Vegetable Crops in Novi Sadd Serbia. Marina has a large seed size and is a full season variety.

Applications

Fiber/Hurd/Grain (where applicable).

Marina	
Origin	Novi Sadd - Serbia
Seed Rate Grain	NA
Seed Rate Fiber	30-45 lbs/acre
Use	Fiber
Maturity (Canada – 50 degrees latitude)	120 + days
CBD:THC Ratio	NA
Plant height (Canada - 50 degree latitude)	2 m
Female to Male (average)	NA
Growth Habit	Uniform Upright Tall
CBD Average %	NA
Commercial seed	Available 2024
Years of Data Collected	2

Key Characteristics

- Monoecious bred for dual purpose
- Flowers Last Week of August
- Large seed size (20 grams/TKW)
- Good Biomass yields
- High bast to Hurd Ratio
- Best use in Canada for Fiber or Experienced combine pilot!



Jurassic

Variety Purpose: Fiber

Variety Type: Dioecious

Description

Jurassic is the first fiber only variety coming from the Verve Breeding program. This variety is a true monster!

Applications

Jurassic is a Fiber only variety.

	CXX-002
Origin	Canada
Seed Rate Grain	NA
Seed Rate Fiber	30-45 lbs/acre
Use	Fiber
Maturity (Canada – 50 degrees latitude)	120 + days
CBD:THC Ratio	NA
Plant height (Canada - 50 degree latitude)	4 m
Female to Male (average)	NA
Growth Habit	Uniform Upright Very Tall
CBD Average %	NA
Commercial seed	Available 2024
Years of Data Collected	2

Key Characteristics

- Flowers beginning of September
- Up to 4 Meters in height
- Ideal for green fiber harvest
- Minimal branching
- Excellent internode spacing for long fiber applications





2024 FEMINIZED VARIETIES

CBF1

Description

CBF1 is a photoperiod-sensitive, long-season hybrid with flower production yielding up to 10% CBD and a CBD:THC ratio of 30:1.

Applications

CBF1 is used for flour/CBD purposes.

CBF1	
Origin	Canada
Seed Rate Flower	2500-3000 plants/acre
Flower Yield	1-1.5 lb/plant
Use	Flower
Maturity (Canada – 50 degrees latitude)	Photo period late maturing
CBD:THC Ratio (variable)	30:1
Plant height (Canada - 50 degree latitude)	183cm
Female to Male (average)	99% feminized
Growth Habit	Bushy
CBD Average %	Up to 10%
Years of Data Collected	3

Key Characteristics

- First high CBD feminized hemp hybrid approved by Health Canada
- Developed through extensive crossing and selection pressure
- Photoperiod Sensitive late season
- Flower initiation begins early September
- 99% feminized
- Ideal for blending and product formulation
- Terpenes exhibit floral and fruity notes with earthy undertones



Ambassador

Variety Purpose: Flower Production

Variety Type: Hybrid Autoflower

Description

From the Charlotte’s Web breeding team, a Verve strategic partner, comes *Ambassador*—a new hemp variety for those who need a short-season performer. Ambassador is an auto-flower, meaning flowering initiates before the days get shorter.

Applications

CBD Extraction is the main purpose of this variety.

CBF1	
Origin	USA
Use	Flower
Maturity (Canada – 50 degrees latitude)	Auto flower 9 weeks from planting to harvest
CBD:THC Ratio (variable)	28:1
Plant height (Canada - 50 degree latitude)	91cm
Female to Male (average)	99% feminized
Growth Habit	Short compact with numerous branching
CBD Average %	Up to 9%
Seeding Rate	10,00- 15,000 plants/acre

Key Characteristics

- 25 Days to flower after seeding
- 65 Days to harvest after seeding
- 2-3ft tall plants dependent on plant density
- Sweet Earthy aroma with hints of pine
- Major Terpenes Beta-Caryophyllene, Alpha-Bisabolol, Guaiol, Alpha-Humulene, Fenchol, Beta-Myrcene
- Short compact structure can be planted at high density



Umpqua

Description

Umpqua is a mid-season feminized CBD hemp cultivar developed by Arcadia Biosciences, a Verve strategic partner. Verve is excited to deliver growers this early flowering cultivar with significantly increased production returns, excellent vigor, uniform plant type, high flower yields, and CBD content up to 10%.

Applications

CBD Extraction is the main end use of this variety.

Umpqua	
Origin	USA
Use	Flower
Maturity (Canada – 50 degrees latitude)	Photo period neutral
CBD:THC Ratio (variable)	30:1
Plant height (Canada - 50 degree latitude)	180 cm
Female to Male (average)	99% feminized
Growth Habit	Bushy
CBD Average %	Up to 10%
Flower Yield	1.5-2 lbs/plant
Seeding rate	2,500-3,000 plants/acre

Key Characteristics

- Photoperiod Neutral parent, quick to flower and an early finisher
- Photoperiod sensitive, Mid-season hybrid ready for harvest in mid to late September
- Terpenes: Caryophyllene, Myrcene and Guaiol give an intense peppery aroma with a piney finish
- Derived through extensive inbreeding to derive homozygous parents





RAISING EXPECTATIONS

Expert support from

experienced agronomists.



High Performance Hemp



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