

Our Tenth Year

# Hemp TODAY<sup>®</sup>

A DECADE OF  
Voices  
& Vision



## HEMP LEGACIES

Giants who  
passed our way



## DAMAGE DONE

How 'hemp'  
got hijacked



## HT MAGAZINE

2016  
– 2025



# THE LAUMETRIS KP-4 HEMP CUTTER



## RETTING

KP-4 leaves cut hemp evenly distributed on the field for a proper start to the retting process



## TEDDING

Short cut length allows use of tedder, evenly turning hemp for consistency and quality



## RAKING

Shortened length allows use of a rotary rake to handle the hemp, improving harvest efficiency



## BALING

These improvements in the field operation in turn allow hemp to be baled in a more conventional fashion



## INFERIOR METHODS



### SELF-PROPELLED

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### SICKLE BAR

Slow and inefficient, hemp is cut to long, unmanageable lengths



### DISCBINE

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Working speed: **14 -16 km/h (8-11 mp/h)**  
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# Collateral damage

Good riddance to intoxicating hemp. Now, let's move on

The U.S. federal ban on intoxicating hemp products lands like a long-overdue correction. With one signature, the government has finally closed the loophole that allowed synthetic THC derivatives to masquerade as “hemp” and dominate the national conversation. It is the clearest signal yet that the era of delta-8 drinks, HHC gummies and THCA flower posing as legal agricultural output is ending.

The path to this moment in the United States has been chaotic. Since 2019, intoxicating hemp has expanded through every regulatory crack available, driven not by agronomy or market fundamentals but by opportunistic chemistry and a willingness to exploit ambiguity. The products spread from vape shops to convenience stores, riding the misinterpretation of the 2018 Farm Bill and flooding the country with lab-altered intoxicants that Congress never intended to legalize. The trajectory has been obvious for years — yet it still took a statutory redefinition to shut the machine down.

## Friend of hemp, accidentally

That redefinition arrived when Donald Trump, in November 2025, signed the government funding law that effectively removed delta-8, HHC, THC-P, THCA flower and similar synthetic variants from the hemp category altogether. By restoring hemp to its original 2018 meaning — a crop for grain, fiber and non-intoxicating derivatives — the law erases the gray-market intoxicants by definition. It is a decisive realignment: a return of hemp to the agricultural and industrial sectors that actually built its credibility.

We're relieved. And we're done pretending this was ever “hemp.”

## How it happened

The intoxicant boom wasn't born of genius; it was born of desperation. When the 2018 Farm Bill legalized hemp, it also legalized CBD — and investors charged in. By 2020 the bubble burst. Overproduction crashed wholesale prices. Extractors sat on mountains of isolate with no customers. That's when chemists in the dullest corner of the cannabinoid economy, discovered that with a small catalytic nudge, cheap, “legal” CBD could be coaxed into delta-8 THC or any number of psychoactive isomers.

Suddenly CBD companies headed for bankruptcy had a lifeline — a reverse engineering of the Farm Bill's language that hemp and all its downstream derivatives were legal.

The loophole birthed a national market in synthetic, quasi-legal THC, an end-run around state cannabis rules,

and a business model that relied on ambiguity, not agriculture. Vape shops, gas stations and convenience stores became de facto dispensaries for products Congress never contemplated and regulators couldn't keep up with. Because these cannabinoids were “derived from hemp,” they were sold as “hemp.” And that — perhaps more than the health risks — is what did the most lasting damage.

## The hijacking

We've said it many times: this flash-in-the-pan sector hijacked the word “hemp.” It swallowed public attention and policymaker bandwidth, obscuring the real opportunities in fiber and grain. It misled investors, likely scared off potential partners, and gave opponents of hemp a weapon they used relentlessly.

It defamed the agricultural sector that hemp advocates spent decades trying to restore. Instead of talking about decorticators, carbon-sequestering crops, green building materials or protein-rich seed, five years were wasted fighting over gummies and other delightful treats sold down at the gas station.

Even now, as the law shuts the door, this aberration of the “hemp” industry is promising litigation, shouting about “lost jobs,” and vowing to reverse the ban before implementation kicks in. Their entire argument fits into one sentence: they believe Congress can be pressured into loosening the definition of hemp again, despite having just

tightened it decisively. We'll see. In this day and age, anything is possible in Washington D.C.

## Moving on

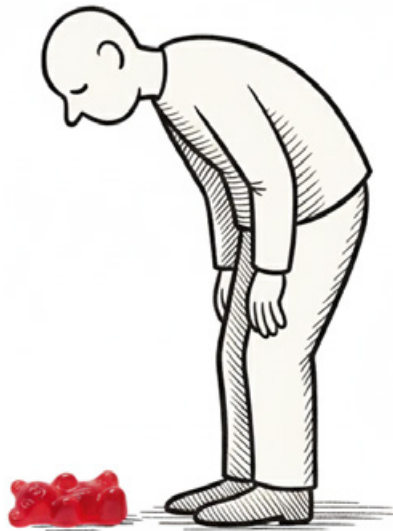
Will the U.S. now return to the work that matters? Hard to say. America led the rise of “hemp” during the CBD gold rush, but it also drove two wheels off the road by allowing synthetic intoxicants to define the category.

The deeper issue is political. U.S. environmental and agricultural policy is now openly hostile to climate-smart innovation, and hemp has already been collateral damage. Restoring basic federal support for research, processing infrastructure, and farmer incentives would require a policy alignment that does not currently exist.

But the intoxicant era is over. And that alone clears the air. It removes the single biggest distortion in the global conversation about hemp. It re-centers the crop where it belongs: in the fields, in materials science labs, in construction sites, in food innovation, and in carbon-market debates.

Let's move on. True hemp has waited long enough.

— *HempToday*





# Cretes to build state-of-the-art hemp processing facility in France

Belgian company Cretes has secured a landmark contract in northern France: the design and delivery of a complete hemp processing facility for the company Chanvrière des Hauts de France, led by Laurent Capon. Scheduled to go online in 2026, the project combines cutting-edge fiber cleaning technology with full-scale automation, positioning the cooperative at the forefront of Europe's hemp industry.

## A bold step for the hemp sector

For Laurent Capon and his team, this investment marks a decisive move toward new standards of quality and efficiency.

"The demand for hemp as a sustainable raw material is growing rapidly," says Capon. "We want to be at the center of that movement — and to do so, we need the most advanced technology available. Cretes convinced us with their know-how and their ability to integrate the entire process into one seamless line."

## Cretes as integrator

Beyond fiber cleaning, the scope includes hurd cleaning equipment, dust extraction, and the full automation and control architecture. This comprehensive role reflects Cretes' reputation as both a technology innovator and a trusted project integrator.

## Innovation meets sustainability

The new facility will give Chanvrière des Hauts de France the ability to process hemp at a large scale and with great precision. That quality is essential for applications in construction materials, textiles, and biocomposites.

## Looking ahead

For Cretes, the project represents another milestone in its international growth story. For Capon and his cooperative, it is the beginning of a new chapter: one where French hemp is processed with state-of-the-art technology, ready to serve a market that is only set to expand.

"This isn't just an investment in machines, it's an investment in the future of hemp as a sustainable resource — and in the people and partners who believe in that future." Mr Capon concludes.





**RICHARD  
ROSE**

## Raising hemp capital without losing your company's soul

**R**aising money for a hemp business is rarely straightforward. The sector still sits in an uncomfortable space between agriculture, manufacturing and cannabis, which means founders often face skepticism from traditional lenders and misunderstanding from investors who think hemp is either a gold rush or a liability. The result is that many entrepreneurs take the first capital offered, without fully appreciating the long-term cost of that decision.

Loans from a bank are hard to get for a hemp start-up, but you might be able to pull money out of real estate equity. Or look for an angel investor among friends or family. In any event, take as little money as possible; nothing is free. Give up as little ownership in your company as possible — it's called equity, and sometimes that's the only thing you have to offer.

### Valuation mistakes compound quickly

Start-ups typically make a mistake in the valuation for purposes of deciding what that percentage should be for the first round, treating it like free money, so they assign an unrealistically high value. What that does is screw you and those investors later when reality sets in and the next round of investors assigns a more realistic, lower value. Again, nothing is free, including the virtual stock you issued when you incorporated.

If you give 10% of your company for an investment of \$100,000, you are saying your company before the investment is worth \$1,000,000.

As many learned when the movie star invested, not all investment money is equal. Dollars from someone successful and willing to open up their Rolodex for you are worth far more than a passive investor's money.

### Investors are not your friends

The ideal lead investor will mentor you, make introductions, use their industry expertise, commit the largest portion of capital, and manage the relationship with other investors. But venture capital investors want to grow fast and big, then get out. From my experience, the hemp accelerators leave a lot to be desired. Their goal is to make money by helping you and then grabbing a big piece of equity for a small amount of money. It seems like the blind leading the blind. Beware of thugs in suits.

For many investors, the founder is just an obstacle to be eliminated as soon as practical. They are not your bro, no matter how many times they call you that. They think they can make more if they jettison you, despite knowing little about your business.

Don't let investors dawdle before depositing the money in your account. That \$100,000 today is worth far more than \$100,000 in six months. Enforce deadlines.

Since the investors have filed a UCC-1, that means that if you fail, they get everything. Protect your intellectual property by licensing it to the company so you get it back in bankruptcy. Don't take stock in a buyout unless it is liquid and actively traded.

When investors say "trust us," remember they already wrote the paperwork assuming you won't.



*Excerpted from Seedy!  
by Richard Rose. For free  
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# A hemp way of Thinking

The sector's next phase demands structure, patience and intent

**BERNARD THOMSON** is executive officer of the Australian Hemp Council, where he works to build robust hemp value chains and promote sustainable cultivation and processing standards across Australia. He entered the industrial hemp sector in 2017 after a chance encounter with hemp producers at a farmers market led to his involvement with the South Australian Hemp Association, later joining its executive committee as treasurer. Thomson also serves as treasurer and a board member of Economic Reform Australia, Rethinking Economics Australia and Public Money Australia, and founded *philosophy-of-freedom.au*, a platform based on the work of Rudolf Steiner.

**HempToday: Was there anything that came out in the new Australia & New Zealand Hemp Report that surprised you?**

**Bernard Thomson:** Not really, as I try and keep an eye on developments and listen to reports as they circulate. However the report did put for me into greater focus the need for hub infrastructure design and funding as well as the risk inherent in a processing facility relying on a consistent volume and quality of an agricultural crop. Hence the location of hubs will also need to identify their climate risk profile, drought, flooding etc. I found reviewing information that I am to some extent already acquainted with is a stimulus to gain more clarity and discover new questions.

**HT: The report highlights strong growth potential, especially in building materials and fiber. What do you see as the top opportunities for Australian hemp over the next three to five years?**

**BT:** I see a number of initiatives where the planning has become more mature and comprehensive. Market potential is no longer sufficient and product design to meet real market demands is moving ahead. At the same time the market also needs to develop and this does present some risk for those who jump in early. That is where government or local council support can make a significant difference. I think we are past the corporate hero model and the sharing of risk across the value chain creates a stronger foundation for success.

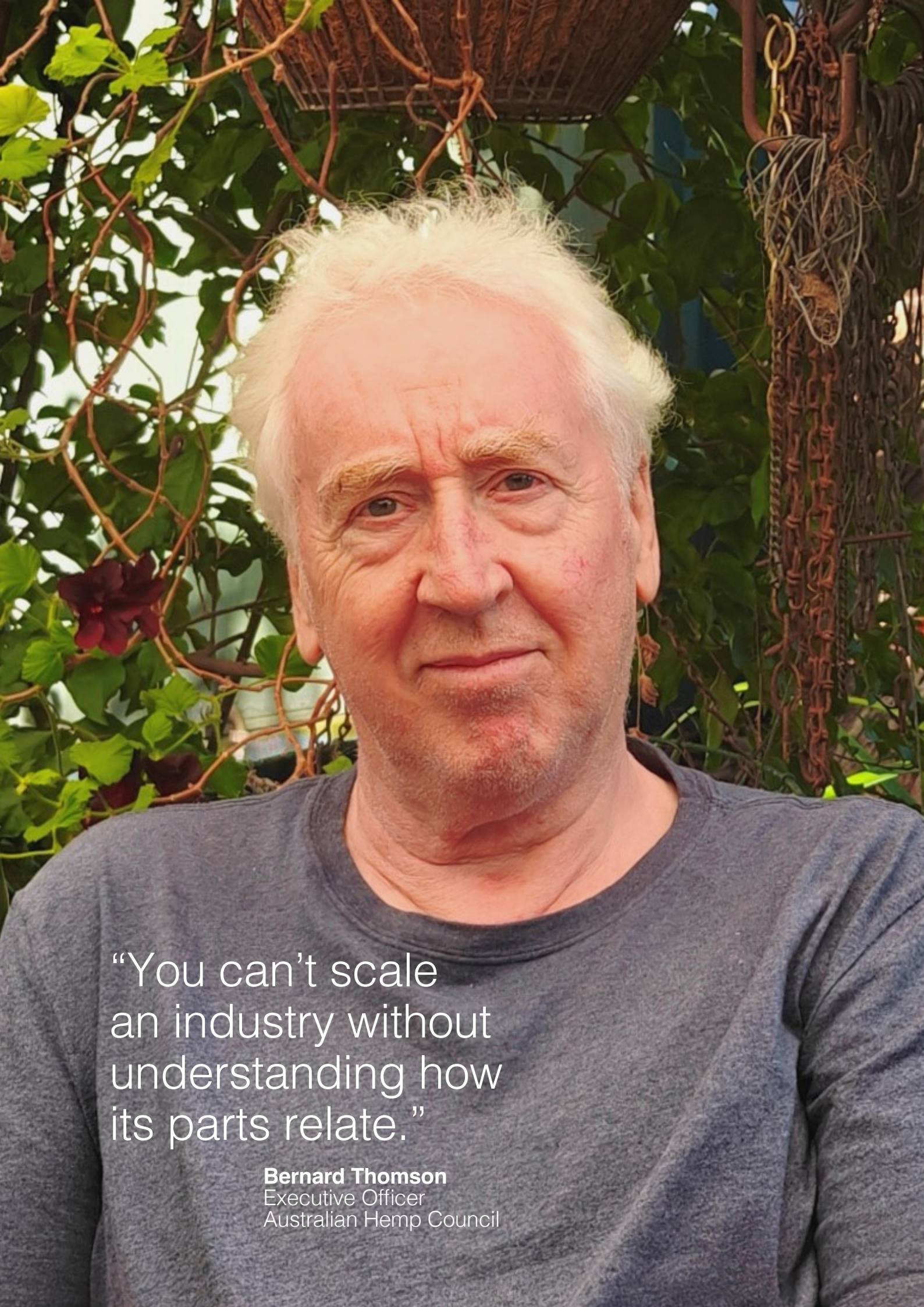
**HT: The report flags regulatory fragmentation and thin processing capacity as major constraints. What policy or infrastructure changes would most accelerate industry scale-up?**

**BT:** Clearly public sector recognition of the contribution that industrial hemp can make will be a great boon. This includes its contribution to rural industry, agriculture more broadly as a rotational crop, but also carbon sequestration and remediation of contaminated soils. With this recognition can come practical support with funding for research, technology and market development.

**HT: Processing bottlenecks remain the biggest hurdle for growers. How realistic is a move toward regionally distributed processing hubs?**

**BT:** As I suggested above regional hubs are essential for economic viability with bulk products like fibre and hurd. They also need to be located with good access to freight infrastructure for market access, and in regions where environmental risks, especially of drought or extreme weather, is manageable.



A portrait of Bernard Thomson, an older man with white hair, wearing a grey t-shirt. He is standing in front of a green vine-covered trellis with a wicker basket hanging from it. The lighting is warm, suggesting late afternoon or early morning.

“You can’t scale  
an industry without  
understanding how  
its parts relate.”

**Bernard Thomson**  
Executive Officer  
Australian Hemp Council



**HT: Hemp-based building materials appear to be one of the most promising demand areas. What standards or policy settings are needed to unlock this market at scale?**

**BT:** Greater familiarity with the potential of hurd and fibre based products within the construction sector will be a good start. These products need to meet industry recognised specification standards. In addition public policy which targets the carbon footprint in the construction industry can significantly raise the profile of hemp based products. Most of the carbon emissions in the construction industry (approx. 18% of total emissions in Australia) are associated with embodied carbon.

**HT: How do you balance the goal of building strong domestic hemp supply chains with the growing interest in exporting raw or semi-processed hemp products?**

**BT:** I think we need to respond to the immediate conditions and opportunities, but always keep in mind that selling products into local markets reduces the cost of freight (and emissions). Transport costs do not improve the product itself. At the same time we can't simply replicate manufacturing technology everywhere so we need to specialise in some areas, and that means we move products around.

Most countries talk up the virtue of exports but in my view it makes little sense for similar products to pass each other on the high seas bound for each other's ports.

**HT: You've emphasized environmental stewardship and community-based economic models. How do these values shape your priorities for hemp development beyond commercial growth?**

**BT:** I see hemp as having great promise but not giving up its value so easily. Aside from the environmental benefits I believe that a cooperative approach is essential which is good for community and good for human wellbeing. Self-interest must be balanced with social concern and I like to pay attention to the unique relationships that underpin successful endeavours. Interest in the other is the foundation for building strong relationships which are essential in an industry where we must learn together and share risk.

**HT: With your interest the holistic philosophy of Rudolf Steiner, how does that worldview influence your thinking**

"If we don't think clearly about structure, growth will remain fragile."

**about decentralised industry structures or cooperative models in hemp?**

**BT:** Steiner is best known for his contribution to education, agriculture and medicine. But he also addressed social and economic issues directly following the calamity of the First World War and the predictable failure of the Versailles Treaty. His special contribution to economic and social thinking is described in the book "The Threefold Social Order" which highlights three functional principles that must be reflected in the three spheres of society – Culture (Freedom), State (Equality) and Economy (Fraternity). He makes clear that our shared economic well-being is directly dependent on our capacity to work cooperatively through associations. The egotistical principle which underlies the current free market ideology runs counter to a cooperative approach producing inefficiency and waste.

**HT: As hemp becomes more mainstream, how can the industry protect transparency, community benefit, and environmental integrity while still scaling?**

**BT:** There is in my view nothing inherently positive about simply getting bigger. However there are economies of scale and also opportunities for a greater impact that come with a larger market presence. It is however important that the environmental and social values are not compromised by the promise of economic expansion..

I would say that in general good role models have the best influence, prescriptions and regulations can only curtail undesirable behaviour. If you have an overall positive view of human nature then you need to keep that in view.

**HT: Looking ahead 10–15 years, what is your ideal vision for Australia's hemp landscape — environmentally, economically, and socially?**

**BT:** I believe that the hemp industry can educate us in good agricultural practice, environmental awareness and social responsibility. I would like to see this become an enduring part of its future development.

**HT: What do you consider your main contribution to the industrial hemp industry?**

**BT:** Being neither a grower, processor or industry expert, I see my role as an enabler or facilitator, providing organisational administrative support, networking and asking questions.



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**I**ndustrial hemp has seen a decade of rapid legal shifts, market booms and busts, and stubborn regulatory battles. A sector once seen as a savior crop now faces the hard realities of consolidation, compliance and consumer trust. Where does the industry stand as it turns the next corner into mainstream revival?



## 3,653 days of hemp

When HempToday began reporting on the global hemp sector in 2016, European stakeholders had already quietly rebuilt a small but hearty industry, having started more than a decade earlier. From the early 2000s onward, European hemp operated as a regulated agricultural and industrial input under the EU's Common Agricultural Policy, with cultivation supported by established seed systems, farmer participation, and downstream processing. Production was oriented toward specialty papers, insulation, automotive composites, animal bedding, and food and food ingredients.

### Europe's head start

While growth was gradual and constrained by processing capacity and fragmented end markets, Europe entered the mid-2010s with functioning supply chains, regulatory continuity, and practical industrial experience.

Across the Atlantic, after the 2014 U.S. Farm Bill allowed pilot projects, early stakeholders began trials that showed hemp could be more than the subject of activist campaigns, and become an agricultural crop again in American soil.

### China's dominance

Meanwhile, China's entrenched hemp industry still dominated global supply. Already mature in cultivation and processing, China's hemp sector was framed as an industrial, export-oriented system operating under strict controls that clearly separated industrial hemp from marijuana. By the mid-2010s, Chinese stakeholders had established scale, processing depth, and cost efficiency, anchored in fiber and textiles but extending, quietly, into export-oriented CBD extraction. China, well ahead of Europe and light years ahead of the re-



**When HempToday started, the USA lagged well behind Europe, which had begun to rebuild its hemp industry at the turn of the century.**



**China's entrenched hemp industry dominated global fiber supply, and quickly expanded to become the leader in hemp cannabinoid production as well.**

emerging U.S. industry, was – and continues to be – the world's dominant hemp producer.

Elsewhere in Asia, hemp followed more fragmented paths. Japan maintained a highly restrictive approach rooted in postwar drug control, while countries in Southeast Asia cautiously explored hemp within broader cannabis reforms, often prioritizing medical or pharmaceutical channels over industrial uses. India, despite hemp's deep historical roots, remained largely on the sidelines, constrained by regulatory ambiguity and uneven state-level policies.

Meanwhile, several African countries were quietly laying early regulatory groundwork, envisioning hemp as an export and rural-development crop rather than a consumer market.

## Food: Business as usual

When HempToday began publishing, hempseed-based foods already represented the world's largest and longest-established hemp market, with deep roots in traditional diets and modern health-food channels. Products such as whole seed, hulled seed, oil, and protein powders were well integrated into mainstream food systems in Canada and parts of Europe, supported by clear food regulations, reliable agronomy, and scaled processing.

Similar food-focused hemp traditions persisted in parts of Asia and Eastern Europe, though they attracted far less international attention.

## Legal breakthrough

By contrast, the United States—despite strong consumer demand and retail growth after 2014—never fully developed domestic supply at scale and has continued to rely heavily on Canadian imports. As a result, hempseed foods entered the late 2010s as a mature, proven



**Zimbabwe's early trials were conducted at a federal prison, after hemp was legalized under strict rules in 2018.**



**Germany had a high-tech, solar-powered hempseed food processing factory as early as 2019.**



sector globally, but one in which the U.S. remained structurally dependent on foreign production, even as it debated newer and far less established hemp markets.

The single most important milestone of the past decade came in December 2018, when the U.S. Farm Bill removed hemp from the federal list of controlled substances. For the first time since World War II, American farmers could legally grow hemp nationwide. The law unlocked investment, made interstate commerce feasible, and offered a stamp of legitimacy that rippled far beyond U.S. borders, influencing policy debates in Latin America, Africa and parts of Asia.

The Farm Bill also planted the seeds of later conflicts. By defining hemp as cannabis with less than 0.3% delta-9 THC, it legalized cultivation but left the door open for derivatives that would test regulatory boundaries. Few foresaw that loophole leading to the scourge of intoxicating hemp compounds like delta-8 THC just a few years later.

## The CBD gold rush

From 2018 to 2020, CBD was the star. HempToday's news feed filled with announcements of new brands, tinctures, capsules, cosmetics, even CBD-infused beverages and pet treats. Wall Street analysts and cannabis "economists" published bullish forecasts, while small startups promised "the next big thing" in wellness.

The gold-rush hype came at a cost. Oversupply quickly swamped the market. In states across the USA, thousands of acres were harvested for CBD extract, only to see raw materials prices crash. Many farmers found themselves holding unsold inventory or bankrupt.

At the same time, U.S. regulators were not ready. The Food and Drug Administration (FDA) issued stern warning letters against companies making unsubstantiated health claims, while declining to set clear rules for CBD as a dietary supplement.

In the EU, trade in flowers and CBD was declared



**The 2018 Farm Bill supercharged a nascent but unregulated CBD market in the U.S. and around the world.**



**U.S. regulators were unprepared for CBD, and could only issue warnings.**

legal – as demand plunged. CBD companies ran into novel food regimes, which required costly safety dossiers that most startups could not afford.

In Latin America, countries such as Colombia and Uruguay pursued more export-oriented, pharmaceutical-aligned cannabinoid strategies, while in Africa, early hemp and cannabis reforms unfolded cautiously amid concerns over enforcement and access to capital.

### Pandemic reset

The pandemic in 2020 hit hemp as it did every other sector. Supply chains were disrupted, shipping costs soared, and consumer demand fluctuated unpredictably. Yet COVID-19 also forced hemp players to reconsider their priorities.

Interest grew in resilient value chains: hempcrete construction, sustainable textiles, and locally sourced hemp foods. In the U.S., interest revived in grain and food applications, including protein powders and plant-based ingredients. Similar reassessments occurred in Europe, parts of Latin America and Australasia, where governments and researchers began emphasizing domestic processing and supply-chain resilience.

COVID-19 – coming on the back of the CBD crash – indicated clearly that hemp’s future could not be tied solely to cannabinoids.

### Intoxicant crisis

If the 2018 Farm Bill opened the gates, it also left a regulatory blind spot that has crippled the industry. Around 2021, nefarious, hard-pressed CBD producers began selling their backed-up supplies to companies that turned it into synthetic intoxicants such as delta-8 THC. Because these compounds were synthesized from CBD but not explicitly banned, they spread rapidly.

HempToday documented the proliferation of “high”-inducing gummies, vapes and candies often marketed



**In Latin America, Uruguay and other countries crafted policy intended to develop exports of food and feed, cosmetics, medicine and genetics.**



**As delta-8 and other synthetic intoxicants began to appear in the U.S., poison control centers saw an uptick in incidents reported. A black eye for ‘hemp.’**



## COVER STORY

to youth and available at the local gas station convenience store or bodega. As lab testing was bypassed, poison control centers began logging incidents. States scrambled to pass their own bans or restrictions, while federal agencies faced pressure to act.

By 2023, intoxicating hemp products had become one of the sector's defining controversies. These products damaged the sector's reputation, undermined legitimate CBD businesses, and provoked regulators to lump all hemp together as a problem child. Again.

### Europe stalls

While the U.S. wrestled with intoxicants, Europe hit its own bottleneck. In 2022, the European Food Safety Authority declared that data gaps in CBD safety studies prevented it from approving novel food applications. That left many European CBD businesses in limbo.

Things moved only a bit faster in the UK, where food safety officials struggled to develop an approval framework and then give producers a clear path to market. The result: the European CBD market is constrained, with many companies either selling into legal gray zones, pivoting to other hemp products, or bowing out altogether.

### The next milestone

By 2024, HempToday Magazine declared "Hemp 3.0" was upon us. The phrase captures a pivot from hype to maturity. If Hemp 1.0 was about legalization and rediscovery, and Hemp 2.0 was the CBD boom, Hemp 3.0 is about integration into mainstream industry: fiber, textiles, composites, foods, and climate solutions.

Processing infrastructure is slowly expanding. Canada has consolidated hemp fields for grain and food markets. In the U.S., new decorticators and processing hubs are being built, often with support from state



**With things delayed at the EU level, struggling CBD makers turned to the UK market. But product approvals there have lagged, and the novel food system has been marked by controversy.**



**If Hemp 1.0 was about legalization and rediscovery, and Hemp 2.0 was the CBD boom, Hemp 3.0 is about food, building materials and textiles.**

## COVER STORY

governments or private investment. Similar infrastructure-first approaches are emerging in parts of Europe, Latin America and Australasia.

U.S. lawmakers finally addressed intoxicating hemp in late 2025, passing a law that outlaws products containing substances such as delta-8, THCA flower, HHC, THC-P and other lab-made variants beginning in late 2026.

### Promise vs. hurdles

Hemp's environmental credentials remain among its strongest selling points. Research highlights its capacity for carbon sequestration, soil remediation, and sustainable material production. Hempcrete and hemp insulation are gaining traction in green building circles. Fashion brands experiment with hemp textiles as they seek alternatives to cotton.

Yet commercial hurdles remain. Hemp is not yet cost-competitive with many conventional materials. Processing facilities are expensive to build, and returns are uncertain. Farmers still face risk if seed genetics are inconsistent or if THC levels "go hot." Without subsidies or strong demand pull from major industries, scaling remains slow—particularly in emerging markets across Africa and parts of Asia.

In 2025, Australia and New Zealand offer the clearest picture of where industrial hemp can go when research, market design, stakeholder coordination and regulation move in step. Their industries are not yet fully scaled, but they are increasingly structured — anchored by credible science, clearer rules and a shared understanding of how hemp value chains are meant to function.

That coherence remains the exception globally. In most markets, regulatory clarity is still the gating issue. Until CBD safety questions are resolved, institutional capital will continue to move cautiously, regard-



**A shortage of certified carbon credits is an opportunity for hemp, but stakeholders must beware of scammers.**



**Australia and New Zealand offer the clearest picture of where industrial hemp can go when things move in step.**



less of hemp's agronomic or environmental promise.

Fiber and grain are advancing, though unevenly. New processing initiatives in North America and Europe signal momentum, while selective export-oriented strategies continue to emerge in Latin America and Africa. Downstream demand remains the constraint. Food, construction materials and textiles hold the greatest long-term potential, yet all require stronger market pull, clearer standards and longer investment horizons.

### The road ahead

The next phase of hemp will be quieter than the last. It will depend less on big claims and more on whether the basics are in place.

Farmers will do well where there are dependable buyers for grain or fiber and processing plants close enough to make the numbers work. Processors will succeed if they can produce the same quality, in the same volumes, week after week. Brands will last only if they earn trust by meeting safety rules and being honest about what hemp can and cannot deliver.

Hemp has moved past the experimental stage. The past decade brought attention and excess. The decade ahead will decide whether it becomes a normal, reliable part of agriculture and industry—or remains a niche defined by fits and starts.



**Gains in genetics and agronomy are quietly laying groundwork for the next phase of industry development and, hopefully, a shift from speculative hype to stable progress.**

# QUOTABLE

## Interviews\* 2016 –2025

\* Most-read each year over the decade

### 2016



“We have to set new standards for how to work together to build the industry, not fall into the trap of greed. Not that it shouldn’t be profitable; it just shouldn’t be rooted in greed.”

Dan Herer  
December 16, 2016

### 2017



“I have been able to create a wonderful job, where I can really do something for the environment, and for planet earth, and this is so satisfying.”

Wolf Jordan  
August 14, 2017



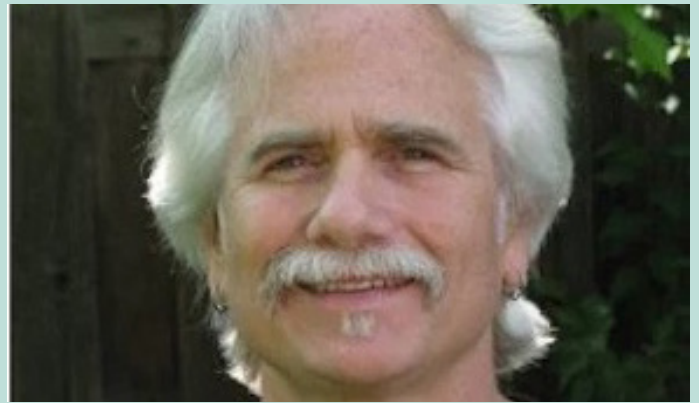
## 2018



“By having things built with the purpose of recycling, with manufacturing systems built to do just that, we will reduce the need to produce new feedstock to make things out of.”

Phil Warner  
November 21, 2018

## 2019



“Hemp has never had as many problems as it does today. I do not believe that is an accident: the more fear in the space, the more people will hire lawyers, lobbyists, and associations to hold their hand.”

Richard Rose  
May 20, 2019

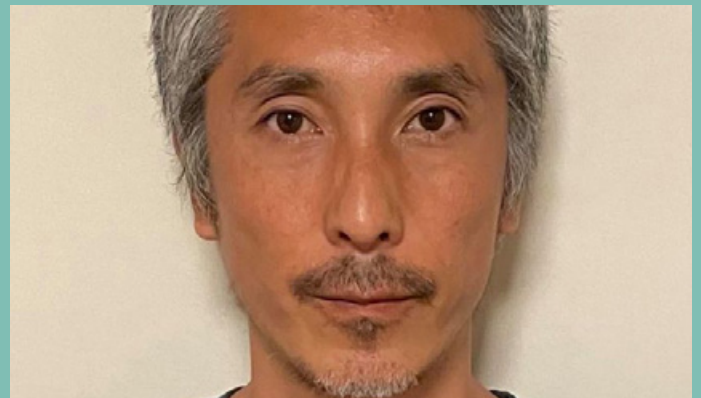
## 2020



“When I look at a tree, a plant or other carbon-based entity, I see a battery. Nature weaves a tapestry of carbon structures from algae to trees that store energy.”

Carl Martel  
September 23, 2020

## 2021



“Drastic social change regarding such things as cannabis requires a lot of time and work. There’s some schizophrenia right now.”

Yosuke Koga  
May 20, 2021

## 2022



“The CBD frenzy really set the hemp industry back as far as I am concerned. It was helpful for a lot of people, but it misdirected the industry and overrode other opportunities.”

Caren Kershner,  
November 28, 2022

## 2023



“The awareness is beginning to expand, especially where hemp building materials are readily available – in France, Belgium, Britain, Germany, Italy and the Netherlands.”

Steve Allin,  
December 5, 2023

## 2024



“The opportunity for hemp is to integrate now with modern technologies for lean construction, and also with modern methods of construction.”

Liam Donohoe  
September 24, 2024

## 2025



“Demand for hemp food and hemp feed alone is showing an increase of 300 to 400 percent this year compared to last year.”

Daniel Kruse  
July 31, 2025



# LEGACY

Those we lost

# 2016 –2025

In memoria on [HempToday.net](https://HempToday.net)



## Prof. Dr. Grzegorz Spychalski

*Director and hemp fiber research leader*

**2016** – Spychalski was director of Poland's Institute of Natural Fibres & Medicinal Plants (IWNIrZ) and a leading figure in interdisciplinary hemp and natural fiber research. Under his leadership, IWNIrZ — a leading European institute dedicated to hemp, flax, silk, wool and related fibers — became internationally respected for its work on sustainable agriculture and fiber science.



## David Williams

*Hemp agronomist and soil health expert*

**2019** – Williams was a pioneering hemp agronomist and soil health specialist whose work helped shape practical cultivation knowledge for farmers in emerging hemp regions. Known for his deep expertise in crop performance, sustainable soil management and on-farm research, Williams was committed to advancing hemp agriculture through evidence-based practice and real-world experience.



## Mark Linday

*U.S. hemp plastics innovator*

**2019** – Linday was noted for pushing renewable resource innovation, developing everyday items from hemp-based plastics and centering his sustainable tech firm around military veterans. His work drew symbolic attention when a custom hemp-based pen from his company was used by Sen. Mitch McConnell to sign the 2018 Farm Bill, a landmark moment for U.S. hemp legalization.



## Julian Stobbs

*South African cannabis and hemp activist*

**2020** – Stobbs, who was murdered at his farm, is remembered as a fearless South African cannabis and hemp activist who, alongside his partner Myrtle Clarke as the “Dagga Couple,” helped challenge outdated drug laws and advance personal freedom. Stobbs co-founded Fields of Green for All and played a central role in the legal battles that led to landmark rulings limiting arrests for dagga possession and cultivation.



## Diana Oliver

*American filmmaker and hemp advocate*

**2020** – Oliver was widely known in the hemp world for producing and directing *Hempsters: Plant the Seed* (2010), a documentary featuring Woody Harrelson, Willie Nelson and Merle Haggard that exposed the absurdity of hemp prohibition and helped galvanize interest in the plant's industrial and medical potential. Her work set her on a mission to advance industrial hemp and medical marijuana awareness.



### Charlotte Figi

*American girl who raised CBD's profile*

**2020** – Little Charlotte, a Colorado girl who had a dramatic response to CBD for Dravet Syndrome, helped spark global awareness of CBD's therapeutic potential. After traditional drugs failed to control her hundreds of weekly seizures, CBD provided remarkable relief, leading to national media attention and the eventual creation and branding of Charlotte's Web CBD.



### Dion Markgraaff

*Long-time cannabis activist and entrepreneur*

**2021** – Markgraaff was known for opening Amsterdam's early hemp retail presence and San Diego's first medical marijuana dispensary. He spent 25 years pushing cannabis normalization, and later promoted hempcrete building as founding vice president of the U.S. Hemp Building Association. He is also credited with seed smuggling that contributed to early U.S. hemp research fields.



### Steven Gluckstern

*Entrepreneur and hemp executive*

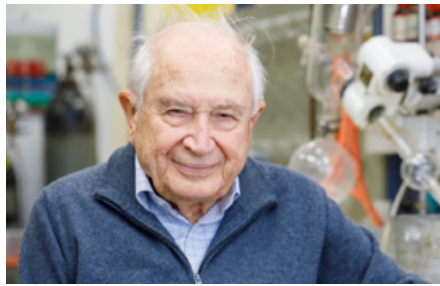
**2022** – Gluckstern was the founder of hemp company element6 Dynamics (formerly Santa Fe Farms). Before hemp, he led major insurance operations, and backed numerous philanthropic causes. In the hemp space, he focused on sustainability-aligned enterprise. Gluckstern was celebrated for a life marked by creativity, generosity and a knack for enlivening community — from business to Burning Man.



### Wolf Jordan

*Belgian natural building innovator*

**2022** – Jordan, a Belgian innovator, teacher, entrepreneur and blues musician, is mourned for his deep contributions to natural building and hempcrete. Renowned for his work with natural paints and plasters, proprietary hempcrete additives, and ecological building materials, Jordan lectured and built around the world, inspiring builders and creators with his "small is beautiful" ethos.



### Raphael Mechoulam

*Israeli chemist and pioneer of cannabinoid science*

**2023** – Mechoulam is widely regarded as the father of modern cannabis science. A professor at the Hebrew University of Jerusalem, he was the first to identify THC and CBD, laying the foundation for decades of cannabinoid research. His work ultimately led to the discovery of the endocannabinoid system and reshaped scientific understanding of how cannabinoids interact with the human body.



### Jürgen Neumeyer

*German cannabis reformer and industry advocate*

**2024** – Neumeyer was a central architect of Germany's modern cannabis reform movement and a unifying force within the country's emerging legal industry. As managing director and co-founder of the German Cannabis Industry Association (BvCW), he helped professionalize sector advocacy, bridge political divides and press for evidence-based reform. His work helped shape conditions that led to Germany's landmark cannabis law in 2024.



# MAGAZINE

## Archive 2016 – 2025

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2016 EIHA



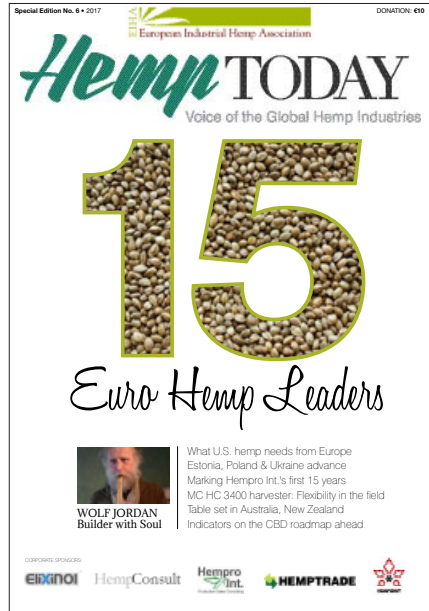
2016 Cannafest



2016 Special Edition



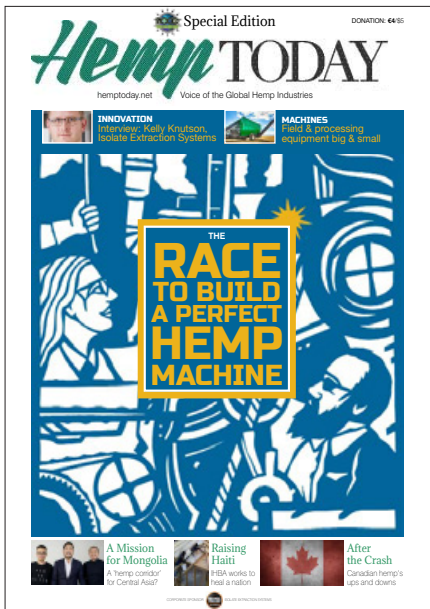
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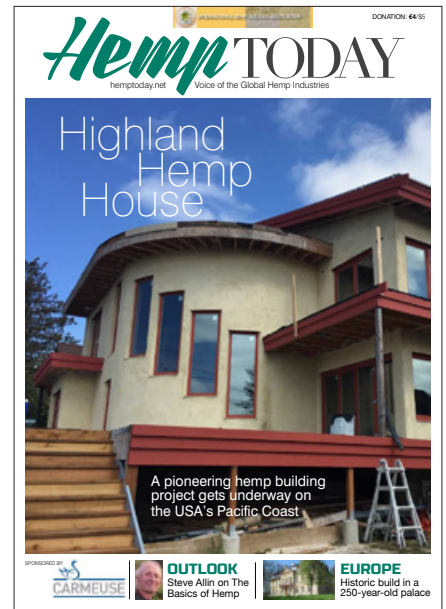
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NOCO 2018



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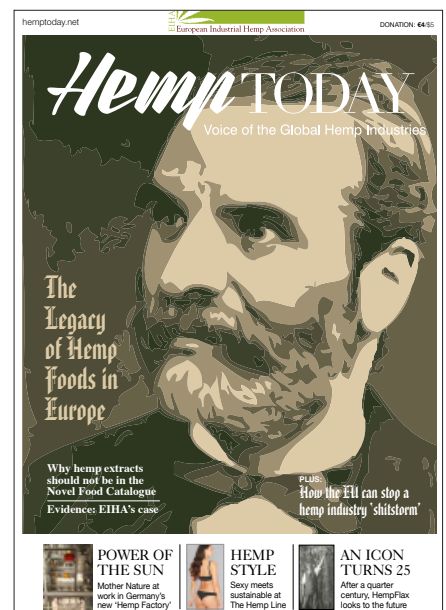
IHBA 2018



2019 Asian Hemp Summit



2019 NOCO



2019 EIHA





2019 USHBA



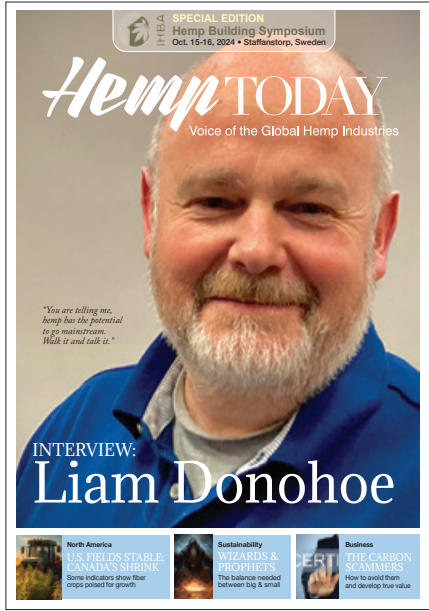
2019 LatAm Hemp Summit



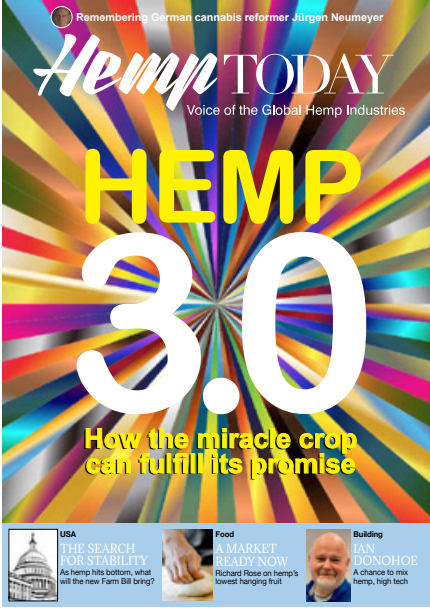
2020 EIHA



2021 Q4



2024 IHBA



2024 Q4



2025 Q1



2025 Q2



2025 Q3





Karaganda, in the central Kazakhstan steppe, is one area identified for hemp farming

# Seeding the steppe

Kazakhstan approves 281 hemp varieties, setting stage for fast growth

Kazakhstan's rapid move to legalize and industrialize hemp marks one of the most ambitious late-entry plays in the global sector, combining land scale, centralized policy direction and coordinated foreign outreach in a way few countries can replicate. The government's approval this year of 281 industrial hemp varieties—sourced from Australia, Canada, China, Europe, Japan, New Zealand and the United States—signals an intent to compress decades of sector development into a short window. Unlike jurisdictions that required multi-year national trials for each cultivar, Kazakhstan cleared the entire list in a single resolution signed Sept. 22 by Prime Minister Olzhas Bektenov, an unmistakable signal that speed and strategic positioning now outweigh incremental caution. That decision followed the formal legalization of industrial hemp cultivation earlier in the year and has been paired with a tightly managed licensing regime overseen by the Interior Ministry, which has issued

a small number of permits under strict security, fencing and siting requirements, including minimum distances from roads and residential areas.

## A build-from-scratch opportunity

Kazakhstan's hemp strategy is rooted in a rare alignment of geography, land availability and state intent. The country borders or sits near multiple large and complementary markets: China to the east for textiles, pulp and specialty paper inputs; Uzbekistan and Kyrgyzstan to the south for construction materials, animal bedding and low-cost industrial goods; and westward Caspian trade corridors linking Azerbaijan and Georgia to Turkey. Domestically, officials see immediate opportunities in paper, packaging, insulation and construction materials—sectors where state procurement could provide early demand certainty and reduce reliance on imports. Licensed cultivation sites already span Astana, Almaty,

Karaganda and Kostanay, indicating a deliberate effort to test hemp across diverse climatic zones and logistical settings rather than confining it to a single pilot region or a single industrial buyer.

The agricultural backdrop strongly favors scale. Kazakhstan has one of the world's largest reserves of arable land, much of it in vast steppe regions suited to mechanized, input-efficient farming. Average farm sizes—particularly in the northern grain belt—are far larger than those typical in Europe, and many operations trace their roots to Soviet-era collective farms that later transitioned into large commercial enterprises. Over the past decade, state and private capital has flowed into irrigation, storage, transport and export infrastructure, all aimed at boosting value-added agricultural output. Hemp fits cleanly into this model as both a rotational crop and a source of industrial feedstock, capable of integrating with existing grain and oilseed systems rather than competing with them. Its low input





Chinese and Kazakh officials are talking deals

Photo: Kazakh Ministry of Foreign Affairs

requirements and adaptability to different climates suit the northern and central regions, while large contiguous plots allow for efficient mechanized cultivation. If Kazakhstan links cultivation to processing plants for fiber, hurd and seed oil, hemp could slot into existing value chains and create a pathway from bulk agriculture to domestic manufacturing.

### Foreign capital circles

Foreign interest has emerged quickly and, notably, through official diplomatic and investment channels. In July, Italy's *Unione Coltivatori Italiani* met with Kazakh Invest and other officials in Astana to discuss pilot plots and longer-term ventures in textiles, green construction and pharmaceutical inputs, with initial plantings of up to 100 hectares expected across several regions. In September, a second and potentially larger signal followed from China, when Gabidulla Ospankulov, chairman of the Investment Committee at the Ministry of Foreign Affairs, met with Li Shu-he, chairman of Cheng Tian Run Kang Medical Limited. The Chinese company outlined plans to cultivate and process hemp for pharmaceuticals, dietary supplements and textiles, framing Kazakhstan as a strategic base for long-term cooperation rather than a short-term sourcing play.

Kazakh officials have been explicit that hemp aligns with national priorities in deep agricultural processing, pharmaceuticals and light manufacturing, and that state agencies are ready to support projects that fit those priorities. Authorities say they have identified more than 500 potential hemp applications across bioenergy, industrial materials and consumer-adjacent products. Practical motivations are also clear: domestic hemp production could offset significant imports, includ-

ing paper products that have exceeded \$100 million annually. Pilot plantings are already underway in Kostanay, while planning is advancing for a second full-cycle agro-industrial facility in North Kazakhstan, suggesting the government is aiming to move beyond raw cultivation into integrated processing and manufacturing. The Industry Ministry has also outlined a goal to develop a full production chain, from cultivation through processing to finished goods—an approach that, if implemented, would make Kazakhstan less dependent on volatile commodity markets and more able to capture margins in fiber conversion, panel manufacturing and textile inputs.

### Policy gaps to close

Despite the momentum, Kazakhstan's hemp sector remains more permissive on paper than proven in practice. Several commercial foundations are still missing. Government procurement policies, in particular, could determine whether early projects gain traction. Without clear tenders or purchasing commitments for hemp-based paper, packaging, panels or insulation, processors may struggle to secure the predictable demand needed to justify investment in decortication, fiber refining or composite manufacturing. Export frameworks are similarly underdeveloped. While Kazakhstan's location offers proximity to major markets, standardized certification, customs procedures and logistics pathways for hemp products have yet to be fully defined, creating uncertainty for export-oriented investors. For a landlocked country, the details matter: predictable rail capacity, border clearance routines, harmonized product standards and clear documentation can determine whether shipments move smoothly or stall, and hemp's

association with narcotics control can amplify friction if compliance systems are not standardized.

The legal rollout is also unfolding against a complex historical backdrop. Regions such as the Chüy Valley and Kyzylorda have long been associated with illicit cannabis cultivation, with authorities reporting seizures exceeding 230 tons since 2014. The government's hemp strategy explicitly aims to redirect land, labor and infrastructure into controlled, legal industrial production rather than leaving it idle or illicit, while keeping narcotics enforcement closely involved in oversight. That balance—between tight control and commercial flexibility—will shape how quickly the sector can scale and how attractive it is to investors who need operational predictability rather than ad hoc permissions.

Kazakhstan now has the varietal base, land scale, early investment signals and strategic geography to build a vertically integrated hemp industry in a compressed timeframe. What remains uncertain is execution. Converting approvals into functioning supply chains will require rapid progress on procurement rules, export systems and processing capacity, as well as clarity on which product categories are favored for domestic development versus export. The country's advantage is that it can design a hemp economy with today's end markets in mind—construction inputs, industrial fibers, packaging and regulated health applications—rather than inheriting an older structure. If those gaps close quickly, Kazakhstan could move from late starter to regional hemp hub within a few growing seasons; if they do not, the current surge of interest risks joining a long list of ambitious agricultural diversification plans that never fully made the leap from ministerial announcements to industrial throughput.



# Dreaming big

Tiny island nation of Vanuatu sees hemp as way to diversify economy

**T**he tiny island nation of Vanuatu is moving to finally activate its long-stalled hemp and medical marijuana industries through a new bill now before Parliament that would smoothe the path for licensed operators.

Parliament is debating an amendment that would update the Industrial Hemp and Medical Cannabis Act of 2021 to explicitly allow banks to open accounts and process transactions for licensed operators, a bottleneck that has prevented businesses from operating since licenses were first issued.

The 2021 law legalized the cultivation, manufacture, and export of both industrial hemp and medical cannabis.

Without a clear legal mandate permitting financial institutions to handle funds related to hemp or cannabis, investors and producers have been unable to start operations despite holding valid licenses.

The amendment is designed to remove that bottleneck and make the law operational across the Y-shaped archipelago of 82 islands situated between the Solomon

Islands to the north and New Caledonia to the south. It is one of 19 bills under discussion this term.

Vanuatu's 2021 law placed the country among the first in the Pacific to legalize the hemp and medical marijuana sectors simultaneously. The government issued 10-year licenses—two for medical cannabis and three for industrial hemp—and designated cultivation zones across islands such as Efate, Santo, Malekula, Tanna, and Erromango.

Officials have promoted the program as a pathway to diversify the economy, attract responsible foreign investment, and develop new export industries alongside traditional pillars like tourism, copra, and kava.

## Farming legacy

Agriculture remains the backbone of Vanuatu's economy, employing roughly two-thirds of the population. Small-holder farms dominate production, with most rural households engaged in mixed

cropping of coconuts, kava, root vegetables, and fruit trees. The government has long sought to diversify its export base by adding higher-value crops.

## Square fit

Industrial hemp, with its potential in textiles, food, building materials, and cosmetics, fits squarely within that strategy. Officials see it as a crop that could be grown in rotation with existing staples, processed locally, and marketed internationally to generate rural income and stimulate investment in agricultural infrastructure.

Implementation of the 2021 framework has lagged amid practical and social concerns. Beyond banking issues, local agricultural officers have voiced unease about theft, misuse, and the challenges of monitoring cannabis production across scattered islands. Nonetheless, the government continues to see the dual-license system as a way to regulate and professionalize the two cannabis sectors.



# Japanese jitters

Move to ban obscure cannabinoid CBN could signal wider hit to hemp

Japan's Ministry of Health, Labour and Welfare (MHLW) has begun accepting public comments on a proposal to classify cannabiniol (CBN) as a designated drug, the first step toward treating the hemp derivative as a regulated narcotic.

If finalized, the rule could prohibit the sale, advertising, distribution, and import of CBN products nationwide, with ripple effects potentially reaching CBD and other hemp-derived cannabinoids. The regulation would affect only Japanese CBN imports; the country prohibits domestic harvesting of hemp flowers and production of cannabinoids.

That comment deadline was initially set for Nov. 27 but was extended to the end of the year to allow broader input on newly released data. Because of the extension, the schedule for finalizing the rule has also shifted. MHLW aims to publish the ordinance in mid-February 2026, with the prohibition taking effect about 10 days after promulgation.

## Avoid purchase and use'

The ministry says CBN products present "a high likelihood of psychotoxicity," and is already urging consumers to "avoid their purchase and use."

"Because it can be difficult to differentiate CBN from products containing other cannabinoids, such as CBD, the Ministry of Health, Labor and Welfare is calling on both consumers and businesses to pay attention to safety and take appropriate action," MHLW said in announcing the consultation.

If finalized, the order would restrict sales, distribution, advertising and import of CBN under the Pharmaceuticals and Medical Devices Act, with promulgation targeted for mid-December and effect 10 days later.

CBN's profile rose quickly in Japan over the past two years as retailers promoted it as a sleep-support compound with "stronger-felt" effects than CBD. High-dose cookies, gummies and other ingestibles quickly spread across e-commerce and boutique wellness outlets.

Multiple Japanese-language reports this year referenced an incident involving a university student who consumed a cookie advertised as containing CBN and subsequently jumped from a second-story window (remaining uninjured); national press and broadcast outlets amplified broader concerns about "cannabis-like" edibles and sudden illness among consumers. While details remain under investigation, the coverage contributed to a sharper policy posture.

Trade associations have tried to get ahead of regulators. The Japan Cannabinoid Federation (JCF) and allied bodies issued position papers and voluntary

drugs in Japan. Commercial sales — including supplements, gummies and wellness products — would be prohibited. Only pharmaceutical companies could use CBN, and only if they apply for and receive a specific medical-use approval from the ministry. MHLW's timeline envisions promulgation in mid-December, leaving a narrow runway for compliance after comments close Nov. 27.

## Shift to ingredient rules

The move to control CBN as Japanese officials are transitioning from "plant-part" rules to ingredient-based controls pegged

to measurable cannabinoids—especially delta-9 THC. Historically, Japan has allowed only stalks and seeds of hemp in products; flowers and leaves remain prohibited.

That framework is still the practical baseline for CBD, which must be derived from those non-flower parts. Customs and regulatory guidance repeat those constraints. But producers have worked around the limitations for years by simply labeling their products as having come from



guidance, and the National Cannabis Commerce & Industry Council (Zenkumakyo) rolled out labeling and ingestion recommendations this year that call for restraint on dose and marketing. These efforts acknowledge reports of emergency transports suspected from overconsumption and flag ultra-high-dose edibles—yet they have not slowed the health ministry from acting.

## CBN's rise, CBD's dilemma

CBN's commercial pitch in Japan has leaned on "feel it" functionality—particularly for sleep—making it a convenient upgrade narrative from CBD. That framing, combined with the difficulty of analytically distinguishing CBN from CBD in end products, is central to MHLW's current warning to businesses and consumers, the agency has said.

If the rule is finalized, CBN would be placed in the same category as controlled

hemp stalks even though that is a practical impossibility.

Japan also enforces some of the strictest THC limits in the world. For CBD oils and powders, the threshold is 10 mg/kg (0.001% or 10 ppm), with even tighter limits for beverages and some foods—orders of magnitude below the 0.3% norms used in the U.S. and Europe. HempToday reporting in 2024 detailed how those caps forced distributors to hunt for ultra-low-THC inputs and re-engineer supply chains.

Stakeholder submissions are expected to test whether MHLW entertains managed-risk options such as dose ceilings and category restrictions, or proceeds with a blanket CBN designation. Either way, the ministry's language—and the accelerated timetable—signal a crackdown that could cascade beyond CBN to other non-intoxicating hemp cannabinoids if differentiation and enforcement remain problematic.

# A lighter touch

Hemp fibers  
under a polarized  
light microscope

Photo: Museum of Fine Arts, Boston

## Researchers test chemical-free pretreatment for cleaner textile fibers

**A** new study from a materials-science journal in China reports a low-temperature, chemical-free pre-treatment for industrial hemp fiber that could help textile manufacturers cut energy use and reduce wastewater while improving fiber quality.

Researchers from the College of Textiles and Clothing and the State Key Laboratory of Bio-fibers and Eco-textiles at Qingdao University paired a light-activated cleaning step with a mild enzyme wash, a combination that performed significantly better than the high-heat, caustic-alkali methods widely used in China and parts of South and Southeast Asia, according to a summary of the findings.

### Pretreating hemp

Pre-treatment is the pre-decortication stage in hemp processing — the step that cleans and loosens the stalk's natural gums before the fibers enter mechanical equipment. Lignin and pectin act like a natural glue that binds the bast to the woody core, making separation harder and increasing wear on decorticators.

Effective pre-treatment removes or softens these gums so decortication can run more efficiently, producing cleaner, higher-quality fiber for textile and composite applications.

Retting is the most common form of pre-treatment for hemp, relying on moisture and microbes to break down

the natural gums that bind the fiber to the woody core. It can be done in several ways: field retting, where stalks are left on the ground to be softened by dew and weather; water retting, where bundles are submerged in ponds or tanks for faster microbial action; and enzymatic retting, which uses targeted enzymes under controlled conditions. All serve the same purpose—loosening the fiber before decortication—but vary in speed, cost, and environmental impact.

### Cleaner inputs

The process tested in China runs at room-like temperatures and a neutral pH, avoiding the harsh conditions that can weaken hemp fiber. In testing, it removed most of the lignin and pectin while keeping the underlying cellulose structure intact. The authors say this balance is essential for producing softer, higher-value textiles without the environmental burden of traditional treatments.

Close-up imaging and chemical analysis showed that the process breaks down the gummy material around the fibers and exposes cleaner bundles, a key requirement for textile-grade spinning and high-value composites.

### How the process works

The first stage of the process uses light to help loosen the tough, bark-like material that holds hemp fibers together.

The second stage applies a gentle enzyme wash that breaks down the natural gums even further. Working together, the two steps free the fibers more effectively than either method on its own, making them easier to clean and separate for textile use.

Researchers said the two mechanisms reinforce one another, with the combined process outperforming either treatment alone.

Preliminary estimates suggest the system could reduce energy consumption by 40–60% compared with conventional alkaline pretreatment. Because the method does not rely on caustic chemicals, it also generates significantly less wastewater, potentially making it suitable for decentralized fiber-processing sites where water treatment capacity is limited.

### Commercial potential

If scalable, the technology could support the textile industry's shift toward cleaner production and give hemp an edge as a low-carbon bast fiber. Cleaner pretreatment methods are critical for achieving the softness, fineness and spinability required for high-value yarns — traits that remain difficult to achieve with today's energy-intensive processes.

The study's authors note that further pilot-scale work is needed to assess equipment requirements, reaction times, and the durability of the photocatalyst under continuous use.





Australasia

# Changing the game in New Zealand

NZ Minister  
for Regulation  
David Seymour

In landmark move, government scraps licensing, sets THC limit at 1.0%

New Zealand's government has approved a sweeping overhaul of industrial hemp regulations, scrapping the current licensing regime and replacing it with a lighter-touch system designed to reduce costs, unlock investment and align oversight with the crop's low risk profile. The government set the THC limit for hemp at a full 1.0%.

Regulation Minister David Seymour said the existing rules had imposed disproportionate burdens on a sector producing non-intoxicating agricultural products.

"The current system treats low-THC hemp like high-risk drugs," Seymour said. "That's absurd when the crop has long been used for food, oil, fiber and health products."

Under the new rules, which come after nearly two decades of industry complaints, licenses will no longer be required to grow or handle industrial hemp, provided crops contain less than 1% THC. Growers will instead be required to notify police and the Ministry for Primary Industries before planting. Existing food safety and medicinal cannabis rules will remain in force.

## Long-sought shift

The decision follows a regulatory review announced earlier this year by Seymour, who has argued that hemp's classification under drug legislation reflects outdated assumptions rather than evidence-based risk assessment.

Seymour said the nearly 20-year-old regulations are outdated and burdensome, and have stifled economic growth

and innovation in the hemp sector.

The review was launched following extensive industry feedback, including submissions through the Ministry for Regulation's red tape tipline and its broader review of agricultural and horticultural product rules.

Industry advocates have long argued that industrial hemp should be regulated as a standard agricultural crop rather than as a controlled substance.

## Economic case

Seymour said reducing red tape would give growers and investors greater certainty in a high-cost economy. Government estimates suggest the reforms will deliver a net present value benefit of about NZ\$7.5 million (roughly US\$4.5 million) over the next 10 years, rising to approximately NZ\$41 million (about US\$25 million) over 20 years as the market expands and compliance costs fall.

While licenses will be eliminated, safeguards remain. Hemp flowers and leaves may be supplied only to licensed medicinal cannabis producers, and under strict conditions. Oversight responsibilities will remain with existing agencies. CBD is legal but tightly regulated and treated as a prescription medicine rather than a general consumer product in New Zealand.

The shift to a 1.0% THC threshold is significant because it reflects how industrial hemp is actually grown and managed in the field, rather than an arbitrarily low legal line. The 0.3% THC limit used in many countries was never based on safety or intoxication risk but

originated from an academic classification in the 1970s, and it leaves growers vulnerable to natural variation caused by genetics, climate and harvest timing.

## 'Hot,' or not

A 1.0% threshold dramatically reduces the risk of crops testing "hot" and being destroyed despite posing no realistic psychoactive risk, while still clearly distinguishing hemp from marijuana. Countries that have adopted higher THC limits argue the approach lowers regulatory risk, improves agronomic stability and encourages investment without increasing public health concerns.

Seymour said the revised framework reflects a more proportionate approach to risk.

"If the Regulatory Standards Act had been in place when these rules were written, the disproportionate costs would have been obvious from the start," he said.

The Ministry of Health will lead implementation of the new framework, working with the Parliamentary Counsel Office to draft the required regulatory changes.

## Industry outlook

Hemp stakeholders have long argued that regulatory reform is essential if New Zealand is to compete in global markets for hemp-based food, fiber, construction materials and wellness products.

The New Zealand Hemp Industries Association has previously projected that, with appropriate policy settings, the sector could generate billions of dollars annually and support tens of thousands of jobs, particularly in rural regions.

# ‘Inflection point,’ Down Under

Australia and New Zealand have put the pieces in place for growth

Industrial hemp in Australia and New Zealand is entering a more coordinated stage of development, with clearer demand signals from construction, fiber and food markets, alongside rising expectations for expanded processing capacity and regional scale.

A new report released today by the Australian Hemp Council (AHC) and the New Zealand Hemp Industries Association (NZHIA) finds both countries approaching a pivotal phase, as early market validation gives way to investment and execution.

“This report validates a critical inflection point for our region,” said Guy Wills, CEO of New Zealand-based natural materials maker Rubisco. “Global industries are seeking high-performance natural materials, and Australasia is well positioned to supply them,” said Wills, who wrote the report’s foreword.

## Australia: Demand and limits

In Australia, survey responses point to a sector ready to scale but constrained by regulatory fragmentation and limited processing capacity. More than 60% of respondents identified hemp building materials as the strongest current market interest, and more than half expect moderate growth over the next three to five years.

The most urgent infrastructure needs



are decortication and fiber processing (55.8%), followed by drying and storage.

“The foundations are there and the momentum is real, but the sector needs coordinated development to reach commercial scale,” said Bernard Thomson, executive officer of the Australian Hemp Council.

Researchers at Australia’s La Trobe University, which recently published work on modular hempcrete technology, said the sector shows readiness for expansion, particularly in low-carbon construction materials.

“With agronomy and carbon benefits established, the priority is validating standards and national consistency,” said Dr. Ernesto Valenzuela, senior lecturer in agricultural economics at La Trobe University.

Dr. Julio Mancuso Tradenta, senior lecturer in economics at La Trobe Business School, said progress now depends on coordinated action by governments, researchers and industry to develop infrastructure and integrated supply chains.

## New Zealand: Value focus

Survey indicators from New Zealand show a sector oriented toward value creation, full-plant utilization and regional processing. Respondents highlighted strong interest in fiber, construction systems and downstream manufacturing.

“We’re seeing a shift from aspiration to practical development, particularly in fiber, building systems and regional processing,” said Richard Barge, chair of the New Zealand Hemp Industries Association.

Taken together, the two markets are converging on a common objective: building reliable processing capacity, consistent product specifications and integrated supply chains capable of serving global natural-materials markets.

“With consistent quality and the right processing capacity, our region can lead in natural-fiber innovation,” Wills said.

## New guide aligns seed with Australian regions

Australia has crossed a threshold that every emerging agricultural sector must eventually reach: it now has a national, evidence-based guide for selecting industrial hemp planting seed.

With the release of a final report on the country’s Industrial Hemp Variety Trials (IHVT) by AgriFutures, Australia’s agricultural R&D and industry-development corporation, the country has completed a three-year, coordinated set of trials across nine growing regions, from the tropics to Tasmania. Growers, processors and investors now have hard data on where hemp performs, how it performs, and under what conditions.

The IHVT results confirmed that hemp is globally adaptable in principle, but environmentally specific in practice. Genetics developed in China consistently outperformed in northern tropical and sub-tropical regions of the country, delivering the strongest biomass and grain

yields, while genetics from Europe and Canada dominated in southern temperate zones, offering greater stability and reliable quality under cooler conditions.

Locally selected seed lines — varieties trialed and adapted within Australia — showed promise in mid-latitude regions, pointing to future opportunities for domestic breeding.

In addition to varietal outcomes, researchers standardized agronomic settings, including recommended planting densities and guidance on irrigation systems, which were all found suitable with site-level adjustments.

## Other key factors

Time of sowing reinforced the regional distinctions, according to the report. In the north, planting in April to May produced the best stands and grain formation; in southern states, November

to December sowings delivered optimal performance.

Seed quality proved to be a systemic constraint, with some imported seed lots recording germination rates as low as 14 percent and quarantine delays interrupting planting schedules, the report notes.

THC monitoring showed that most genetics stayed below the 1.0 percent limit, but one imported line exceeded the legal threshold, leading to crop destruction — a clear signal that provenance and environmental fit matter. The report notes that varietal THC expression can shift under local conditions, meaning commercial cultivation must include monitoring, not just paperwork.

Strategically, the report argues that Australia cannot scale hemp without fixing three structural issues: national seed certification, investment in regionally adapted breeding, and regulatory harmonization across states



# The road ahead

Australia opens a national inquiry into hemp's role in farming, housing

Australia's industrial hemp sector has been given a rare opportunity to define its future, with the Senate opening a national inquiry that will examine the crop's role in agriculture, construction, and the wider economy.

Industry stakeholders believe hemp could help alleviate the country's housing crisis by providing low-carbon building materials, while also bolstering a nascent hemp grain sector and positioning Australia as a global leader in sustainable farming.

The Senate's Rural and Regional Affairs and Transport References Committee is expected to issue a final report should by mid-2026.

## 'Long, steady path'

The inquiry comes after years of pushing for such a study by hemp stakeholders, led by Tasmanian farmer Tim Schmidt.

"It has been a long and steady path to bring this to fruition," said Schmidt, who founded the AHC in 2020.

"This is a golden opportunity to bring the real and amazing features of the hemp industry to light and show clearly the need for government recognition and support so we can reap the huge benefits for our community, environment and economy," he said.

The inquiry also comes against the backdrop of Prime Minister Anthony Albanese's pledge to deliver 1.2 million new homes over five years, a goal that has become the centerpiece of the government's housing strategy. Unveiled in August 2023 through a National Cabinet agreement, the plan earmarks federal funds for infrastructure and incentives to accelerate building.

For hemp advocates, the opportunity is clear. Hempcrete and other bio-based products can provide insulation, panels, and prefabricated elements suited to rapid, sustainable, modular construction, which could help both the government's housing ambitions and its emissions goals.

## Resurgence afoot

That vision is supported by signs of stabilization in the fields. Total Australian hemp plantings have settled in at around 2,000 hectares in the last two seasons (2023-24 and 2024-25). The balance between grain and fiber crops is notable: about 1,700 hectares went into hemp



Tim Schmidt

seed, while 1,564 hectares were planted for fiber. Fiber fields surpassed those farmed for grain in 2024-25.

Australia's hemp economy remains confined to food and fiber outputs. CBD is technically legal but tightly restricted as a prescription-only medicine, leaving the industry without access to the high-value cannabinoid market that fuels hemp revenues elsewhere. This makes fiber and grain development critical to long-term growth.

Investment patterns reflect that reality. Over the last three years, AU\$52 (~US\$34.4 million) has flowed into fiber hemp, with projections of an additional AU\$195 million (~US\$129 million) over the next two years.

## Scope of inquiry

The terms of reference for the Senate inquiry are sweeping, covering everything from soil health and water use in farming systems to opportunities in manufacturing, bioplastics, textiles, and construction. The committee will also examine regulatory inconsistencies across states and assess what is needed to create stable national markets. The process is expected to draw input from growers, processors, researchers, and allied industries.

"This inquiry represents a bridge between tradition and transformation, offering reassurance to conservative policymakers and confidence to the innovators pioneering hemp's future," said current AHC President, Matthew Lariba-Taing. "It's about consolidating trust while unlocking the industry's full potential."

Australia enters this moment with some of the building blocks already in place. State-level organizations have federated under the AHC, giving the sector a collective voice. Researchers and farmers are considered world-class, with proven capacity to scale up quickly if the regulatory environment is clarified. The domestic hemp seed business, while still small, is another area of promise for food and export markets.

Industry leaders argue that the government's role should be to enable rather than to control. Said Schmidt: "The key outcome we require is a legislated definition of hemp (cannabis with less than 1% THC) and have it removed from the national poisons schedule. This will allow the states to reform their respective hemp legislation to open up significant opportunities for the industry and put Australia at the forefront of global hemp innovation, industry sustainability, and profitability."

## Looking ahead, and back

In Australia, inquiries of this kind do not automatically result in new policy, but they can set the foundation for future regulation and investment. Whether it becomes a turning point for hemp, or simply another report that goes nowhere, will depend on whether policymakers see the crop as more than an afterthought in agriculture.

Looking back, Schmidt reflects on how long and winding the road has been to reach this moment. "From those first conversations with Phil Warner about six years ago, to sitting at my kitchen table with Jacquie Lambie four years ago—she told me about timing, and how to make an inquiry happen—it has been a steady path," he recalled.

He said momentum gathered slowly, through the "vital and solid support" of Sen. Peter Whish-Wilson, and then the "100 percent commitment" of Greens leadership. One Nation added its backing at the party's last national conference.

Schmidt reserved special praise for the leadership shown by Sen. Richard Colbeck, which, he said, "ensured the numbers in the Senate for the success of this enormous national initiative."

Schmidt also gave credit to the Tasmanian government officials who helped him navigate the complexity of federal and state rules. Their work, he said, gave him clarity on the regulatory frameworks that still define—and restrict—the industry.



# A narrowing path

Rescheduling order boosts medical CBD while retail remains in limbo

The executive order signed by U.S. President Donald Trump in mid-December directing federal agencies to reschedule cannabis is expected to benefit hemp-derived CBD medicine, while doing little to legitimize the vast over-the-counter CBD market that has operated for years without approval of the U.S. Food & Drug Administration (FDA).

The order, signed Dec. 18, lowers federal barriers to research and prescribing, and signals potential Medicare reimbursement for physician-recommended CBD therapies. But it does not resolve the FDA's long-standing objections to how CBD health aids — sold in the form of oils, gummies, and supplements — are currently marketed and sold in U.S. retail outlets.

Trump's order does not resolve CBD's regulatory contradictions, but rather sharpens the divide between hemp CBD as medicine and hemp CBD as consumer product — a distinction likely to shape investment decisions across the sector in 2026 and beyond.

## OTC vs Rx CBD

Most immediately, only one product, Epidiolex, stands to benefit commercially in the near term from the order. Epidiolex, produced by UK-based GW Pharmaceuticals, a division of Jazz Pharmaceuticals, Dublin, remains the sole FDA-approved CBD medicine, cleared through randomized clinical trials and manufactured under pharmaceutical standards.

A high-CBD, no-THC formula, Epidiolex has FDA's stamp of approval as a treatment specifically for seizures associated with Lennox-Gastaut Syndrome, Dravet Syndrome and Tuberous Sclerosis Complex. It is also approved by the European Medicines Agency and the UK's Healthcare Products Regulatory Agency. (The drug goes by the alternative spelling "Epidyolex" in Europe and the UK.) Canada's federal health regulator, Health Canada, has also approved the medicine.

## FDA stance

The U.S. market today is dominated by non-prescription CBD products enabled by the 2018 Farm Bill but sold



The agency has balked on setting regulations

outside the FDA's drug approval system. The FDA has repeatedly said these products cannot be lawfully marketed as dietary supplements or food ingredients, citing gaps in safety oversight, labeling, dosage consistency, and long-term risk data.

In 2023 and again in subsequent statements, the agency formally asked Congress to establish a new statutory framework for CBD, concluding that current food and supplement laws cannot support a safe, nationwide CBD market. Until that happens, FDA enforcement discretion — not regulatory certainty — continues to govern most retail CBD.

## Hemp signal

For the hemp industry, the order reinforces a strategic pivot already underway: CBD's long-term value may lie less in supplements and more in pharmaceuticals. Hemp-derived cannabinoids remain legally distinct from marijuana, but commercial success increasingly appears to depend on aligning with FDA drug pathways rather than consumer wellness channels.

That shift favors companies investing in clinical trials, intellectual property, and regulated manufacturing — and could accelerate consolidation as capital migrates away from fragmented retail CBD brands.

## Effect on marijuana

Beyond hemp and CBD, the executive order directs federal agencies to complete the long-anticipated rescheduling of marijuana from Schedule I to Schedule III, formally recognizing accepted medical use and reducing federal barriers to research, prescribing and certain financial activities. The shift is expected to ease restrictions on clinical trials, lower compliance burdens for state-legal medical cannabis operators and remove punitive tax treatment tied to Schedule I status, while stopping short of federal legalization of adult-use marijuana.

Recreational cannabis remains illegal under federal law, and regulatory authority over commercial marijuana markets continues to rest primarily with states.





Photo: U.S. Navy

# A historical weave

Hemp cloth returns to maritime duty aboard the USS Constitution

When the U.S. Navy turned to Tuscarora Mills of Bedford, Pennsylvania, to help outfit the crew of the historic USS Constitution with dungarees for a new set of uniforms, it did more than honor the ship's legacy. It quietly marked the Navy's first project involving hemp textiles since the 2018 Farm Bill re-legalized hemp cultivation in the United States—reconnecting America's military with a fiber that once defined its seafaring legacy.

"Hemp and flax served the world's seafaring textile needs for eons for a reason," said Dave Cook, co-founder at Tuscarora. "They have always delivered value, longevity, and performance on the water and in port."

The connection began when Laura Winters, Director of the Navy Clothing, Textile and Research Center in Natick, Massachusetts, approached Tuscarora Mills about sourcing historically accurate textiles for the 200-year-old warship.

Tuscarora's work with hemp and flax fabrics opened the door to a conversation that eventually led to a call from Mathew Welsh, a contractor working with the U.S. Department of Defense (DOD), to recreate the traditional sailor pants for the Constitution's crew, according to

Cook.

For Cook, the request fit perfectly. The Tuscarora mill is known for weaving heritage fabrics for historic homes and museums, from George Washington's Mt. Vernon to Abraham Lincoln's summer cottage, and for producing costumes and textiles for films like *Cold Mountain*. The company also produced the red, white and blue wool bunting used in the bicentennial reproduction of the Fort McHenry Star-Spangled Banner.

## Historic weave

To meet the Navy's requirements, Tuscarora wove a fabric that echoed the Constitution's early 19th-century outfitting. Hemp and flax were the standard fibers of that era—used for uniforms, rigging, sails, and even chinking between the planks.

Tuscarora specializes in 100% long-line hemp fiber for durability, breathability, and historical authenticity, blended with organic cotton grown in Texas and spun in North Carolina for added comfort and cost balance.

The fabric was woven on Tuscarora's iconic Draper shuttle looms, machines manufactured in Hopedale, Massachu-

setts, that once served as workhorses of American textile production.

"Their traditional selvedge and dense weaving abilities made them ideal for this project," Cook explained. "And the fact they were made in Massachusetts felt fitting for uniforms destined for a ship built in Boston."

## Authentic, strategic

The authenticity of the pants went beyond the weave. Previous attempts to source fabrics for Constitution uniforms had relied on materials from China. Tuscarora pushed instead to use European spun hemp yarn from Italian manufacturer Linificio, and domestic organic cotton woven in Pennsylvania, an approach far more aligned with the spirit of the ship and its legacy.

That detail also underscored a deeper point: the strategic value of re-establishing domestic bast fiber supply chains.

"Natural fibers like hemp and flax offer real alternatives to plastic fabrics covered in PFAS 'forever chemistry' that the DOD depends upon today," Cook said. "If hemp worked so well in the past, what is stopping us from using it today to outfit the modern warrior?"





Heidi Custer and Dave Cook, Tuscarora's co-founders, with some of the material used in the USS Constitution dungarees.

## Lessons from the past

The Navy contract was small by industrial standards, but Cook believes its significance is far greater. The project highlighted how bast fibers can deliver high-performance textiles that are durable, breathable, and safe—while supporting local supply chains.

“This brought into focus the opportunities for incorporating 100% long-line hemp yarn and fabrics into the national security discussion,” Cook said. “Reimagining the domestic bast fiber textile supply chain for national security needs certainly seems in line with the DOD’s push to move quickly away from toxic plastic fibers, fabrics, and finishes against the skin of our sailors and soldiers.”

The crew of the USS Constitution has yet to weigh in publicly, but Cook noted that feedback from the Navy’s contractor was glowing. “We heard the new dungarees are beautiful and that the Navy was very happy with the finished product,” he said.

For Tuscarora Mills, the Constitution dungarees represent more than a historic reproduction—they’re a proof of concept for hemp textiles in modern defense and civilian markets. That message aligns with Cook’s broader advocacy for hemp textiles: Demand, innovation and investment are needed to re-establish hemp-specific textile processing and spinning infrastructure in the U.S., he said.

While foreign spinners in China, India, Pakistan, and Europe remain active in the U.S. market, Cook stressed that America has the potential to rebuild its own bast fiber ecosystem. “Imported textile products are not cheap at all, but indeed carry huge environmental, health, economic and

national security costs,” Cook said.

Today, hemp fiber accounts for only 0.2% of worldwide textile fiber production, according to Textile Exchange, a nonprofit that tracks sustainability practices across the textile industries. In the U.S., most hemp fiber processing caters to non-woven markets such as composites, filters, and consumer products. Spinning long-line fiber into high-quality yarn remains a challenge—but one Cook believes is solvable.

“Transforming American hemp into short staple length ‘cottonized’ fiber and spinning blended hemp-cotton yarn has been a long-term goal,” he noted. “These challenges will be overcome, as they have in China and Europe.”

## Pennsylvania legacy

Pennsylvania, once a global leader in natural textiles, is regaining momentum, with groups like the Pennsylvania Fibershed, the Pennsylvania Flax Project, and the Pennsylvania Hemp Industry Council pushing initiatives forward. The state secured a \$1 million National Science Foundation grant in 2023 to develop the Pennsylvania Industrial Hemp Engine. Tuscarora is a key part of this ecosystem, working with local partners to produce 100% hemp yarn and fabrics.

Cook sees the Constitution project as a symbolic bridge. “We are always open to serving the past and history with traditional uses of hemp in textiles and reproductions,” he said. “But our real focus is looking forward and working to reintroduce the public and the Department of Defense to the significant opportunities hemp and flax offer in quality, value, utility and performance to home, industry, and our national security.”

# Michigan hemp waits as the clock continues to tick

Michigan hemp producers may head into 2026 still bound by the state’s Industrial Hemp Growers Act, if lawmakers don’t take action – and fast – on measures that would transfer oversight of hemp farming to the federal government.

Two measures introduced in October remain pending: House Bill 5094 (filed Oct. 7) and Senate Bill 608 (filed Oct. 16) would repeal the state-run licensing system administered by the Michigan Department of Agriculture and Rural Development (MDARD) and move hemp regulation to the U.S. Department of Agriculture’s Domestic Hemp Production Program.

The 2025 legislative session continues through Dec. 31. Each remains in committee with no recorded votes, according to legislative tracking services.

## Time running short

Growers say the state framework adds unnecessary cost. Annual licensing and testing fees can exceed \$1,500 per farm, sampling must occur 20–30 days before harvest, and tests must be performed by DEA-registered laboratories, according to MDARD. Any lot testing above the 0.3 percent THC limit must be remediated or destroyed within 30 days—often wiping out profits for small producers.

The transition to federal oversight could affect the state resources and support that Michigan hemp farmers have relied upon. The state’s program had offered localized assistance, including workshops and guidance tailored to Michigan’s unique agricultural environment. The move to a federal program may mean farmers lose access to such services.

MDARD’s 2024 report listed 36 active hemp farmers, down from 572 in 2019.

Michigan’s situation reflects a broader national trend. After the 2018 Farm Bill legalized hemp under federal law, states could either operate their own USDA-approved hemp programs or defer directly to federal licensing. Many initially chose state control, believing localized oversight would better support growers and processors.

Over time, several states have abandoned their independent programs due to high administrative costs, declining participation, and the complexity of maintaining USDA compliance for sampling and testing.



# Taking a toll

Hemp firms absorb rising trade costs as Trump's tariffs face court test

Tariffs that remain in effect as the U.S. Supreme Court weighs a major legal challenge continue to squeeze companies in the hemp fiber sector, with the pressure intensifying as the case drags into 2026. Industry executives say rising costs have forced them to delay investments, raise prices or scale back plans while Trump-era trade policy remains unsettled and difficult to navigate.

The Court fast-tracked the challenge earlier this fall, examining whether the administration overstepped its authority in imposing a baseline 10 percent duty on most imports. With a decision still pending and the tariffs unchanged, businesses across many industries say their long-term competitiveness remains in limbo. Hemp operators, still building the foundations of a new sector, are among those most exposed.

## Major investments affected

Mattie Mead, CEO and founder of Idaho-based Hempitecture, said capital equipment remains his company's greatest tariff exposure.

"Our industry requires foreign technology to get off the ground. Importing machinery gives us a level playing field in an international market," he said.

Hempitecture, which produces insulation for the building sector, has faced a 10 percent tariff on machinery imported from Europe this year, with the possibility the rate could rise to 15 percent.

"If we import \$1 million worth of machinery, we planned on spending \$100,000 to \$150,000 for installation and commissioning. When we were unexpectedly hit with a 10 percent tariff, that was \$100,000 out of our budget," Mead said.

He argued that manufacturing equipment should be exempt from tariffs if policymakers want to strengthen U.S. industry.

## Textile imports hit

For California-based HempTraders, tariffs have made imported textiles and raw materials significantly more expensive. President Lawrence Serbin said his company is now paying 55 percent in tariffs on hemp products imported from China, including fabric, yarn, twine, rope and seed.

"All our products are more expensive now, making it even more difficult to get hemp into the markets," Serbin said.



He noted that tariffs also affect small items, such as sample fabrics sent by courier, and have complicated export shipments.

"It is frustrating for me to hear people say the tariffs are paid by the exporting countries rather than the American people," he said. Serbin warned that ongoing uncertainty over trade rules continues to discourage long-term investment in U.S. hemp textiles.

## Exports decline

Robert Jungmann, founder and CEO of Washington-based clothing maker Jungmaven, said tariffs have raised the cost of imported yarn from China and caused exports to Canada to drop by nearly 80 percent year over year.

"Our industry depends on stability and consistency to plan production and investments. Right now, policy feels unpredictable and driven more by emotion than strategy," Jungmann said.

While U.S. customers have not yet faced higher prices, the company expects to raise them in 2026 as costs filter through supply chains. Jungmann said clearer trade policy and support for domestic hemp and textile manufacturing remain essential for competitiveness.

The broader U.S. tariff regime underscores hemp stakeholders' concerns. Along with the sweeping baseline tariffs

of 10 percent, and a doubling of steel and aluminum duties to 50 percent, higher levies continue to hit goods from Canada, Mexico, China and Europe. Economists estimate the measures are among the largest effective tax increases on U.S. households in decades, raising business costs and reducing growth.

## Trump's tariffs

Critics have long argued that the president exceeded authority under the International Emergency Economic Powers Act (IEEPA). Lower courts had ruled aspects of the tariffs illegal, but the measures remain in effect while the Supreme Court reviews the case. A final decision is expected in the coming months and could determine whether the administration's trade actions stand or fall.

For hemp, an industry still working to build out its infrastructure, the effect of the tariffs is magnified. While many hemp advocates promote building out local value chains around industrial hemp as the most economical way to grow the sector, industry leaders stress that global trade connections remain essential in the short term.

As Mead put it: "The bottom line is this—building a new industrial bio-economy will always require international collaboration. Tariffs that ignore this reality will only slow down innovation and progress."



## Price cuts redraw competition in Brazil's medical CBD sector

**B**razil's fast-growing \$40-million medical-only CBD market has entered a new phase: aggressive price cuts that are reshaping competition among leading producers.

Prati-Donaduzzi, one of Brazil's largest pharmaceutical manufacturers based in Toledo, Paraná, moved first this past summer, reducing the prices of three CBD concentrations by up to 40 percent. U.S. operator Ease Labs followed later in the month, cutting prices for its entire line of products in Brazil by the same margin. The Charlotte, North Carolina-based company reduced its 30ml unit from roughly \$208 to about \$125. The price of a 10ml bottle dropped from \$74.50 to \$47.

For both companies, the strategy is straightforward: accept thinner margins in order to grow volume, lock in physician confidence, and make products more affordable for patients.

### Strong growth, persistent barriers

Despite high prices, Brazil's CBD market is expanding quickly. Close-Up International, a Brazilian consulting firm that tracks pharmaceutical sales, reported that CBD products grew 41.2 percent in April 2025 compared to the same period the previous year.

Close-Up separates CBD medicines based on isolate from broader "cannabis extract" formulations registered with ANVISA. Medical CBD isolate products represented 52 percent of the total, rising 31.1 percent year-on-year. "Cannabis extract" products made up the other 48 percent, increasing at an even faster rate of 63.8 percent.

Survey data from Kaya Mind, a São Paulo-based cannabis research and intel-

ligence company, show that the number of medical cannabis patients increased by 56 percent from 2023 to 2024, reaching roughly 672,000. Yet affordability remains the main obstacle to treatment, underscoring the significance of the recent price cuts.

In Close-Up's March 2025 ranking of CBD companies, Prati-Donaduzzi, Greencare, and Hypera Pharma led the field of "cannabis extract" producers, followed by Ease Labs and Biolab Corp. Ease Labs recorded the second-highest growth rate, expanding 191.1 percent during the period.

Observers say vertically integrated production models—covering cultivation, extraction, formulation, and distribution—have enabled cost reductions and may become a broader industry trend.

### Jazz not part of the fight

Absent from this pricing shake-up is Jazz Pharmaceuticals, the Ireland-based company that acquired GW Pharmaceuticals in 2021 and markets the epilepsy drug Epidiolex. Jazz entered Brazil in 2019 under existing regulations and sells Epidiolex as a high-concentration CBD medicine for severe seizure disorders.

The reason Jazz has not joined the price war is simple: it competes in a different category, where it is the only licensed player. Epidiolex is a fully registered pharmaceutical, protected by patents and backed by clinical trials. It is prescribed for narrow indications and follows the same regulatory path as any new drug, with pricing tied to conventional pharmaceutical economics rather than to the competitive pressures facing domestic cannabis products. Market estimates are not available for sales of such

specialized products, and Jazz does not disclose Brazil-specific sales.

Brazil's legal framework explains this divergence. Neither recreational nor medical marijuana is legal. There are two legal categories for hemp-derived cannabinoids. One covers registered medicines such as Epidiolex, which require full clinical trials, ANVISA registration, and are generally reserved for severe conditions. The other category allows "cannabis products for medicinal purposes" to be manufactured domestically or imported and sold in pharmacies by prescription. These products do not need full pharmaceutical registration but must comply with standards for quality, safety, and labeling.

It is under the second category that Prati-Donaduzzi, Ease Labs, and other Brazilian companies have launched their products, sparking the current price competition. Jazz remains insulated in the first category, focused on a premium, specialty niche.

### Signals from price war

The recent price cuts reveal how Brazil's CBD sector is evolving. As production of the raw CBD ingredient and finished packaging becomes more efficient, companies can reduce costs and lower prices. This means producers have adjusted their goals to reach higher sales volumes rather than high per-unit margins.

The message of affordability also resonates with regulators and physicians. By presenting price cuts as a way to expand access, companies gain credibility and position themselves as partners in public health.

Whether other producers follow with further price reductions will be the next test of how sustainable Brazil's CBD boom can be. For now, the country stands as an outlier: a large, fast-growing market where regulatory clarity, domestic production, and patient demand are converging, even as much of the world's CBD industry remains uncertain.

### Broader push for hemp

As the two regulated CBD categories are likely to continue growing, observers expect the pace to be gradual, limited by cost, prescription requirements, and regulatory hurdles. Hemp stakeholders are therefore pressing for broader rules that would allow the crop to reach its potential in textiles, food, construction, and bioplastics.

They warn that if Brazil restricts cultivation solely to pharmaceutical production, the opportunities will be narrow and delayed, leaving the country behind peers such as Uruguay and Colombia that have embraced wider licensing frameworks.





## Courts extend deadline again, leaving Brazil hemp in limbo

**B**razilian officials continue to whip-saw the country's nascent industrial hemp sector, advancing limited technical steps even as courts again grant regulators more time to deliver rules they were ordered to write.

In December, Brazil's health regulator, the National Health Surveillance Agency (Anvisa), opened and closed a brief technical consultation to collect existing scientific studies on industrial hemp cultivation. The call, which ran through Dec. 12, marked a modest sign of regulatory motion after years of delays, but it did not authorize cultivation, clarify commercial pathways, or set a timetable for rules.

### Evidence gathering only

Anvisa framed the initiative strictly as an evidence-gathering exercise. The agency offered no funding, pilot approvals, or incentives, instead seeking published studies in Portuguese, English, or Spanish to rebuild the technical record for future regulation.

Areas of interest included cannabinoid profiles; THC and CBD testing methods; agronomy and climate zoning; hemp genetics and plant traits; traceability and quality control; cultivation practices; and comparative legal and socioeconomic frameworks. A specialized Anvisa committee is reviewing the submissions, which are expected to be released in a public technical report.

### Anvisa's limited role

Notably absent were policy questions central to market development. The consultation did not address THC limits, licensing structures, enforcement models, or commercial production rules, reinforcing Anvisa's incremental approach of strengthening scientific justification

before engaging in regulatory design.

The scientific call followed Anvisa's recent decision to grant Brazil's agricultural research agency, Embrapa, an exceptional authorization to conduct hemp cultivation research. Under the approval, Embrapa may grow hemp under strict security, inspection, and traceability requirements. Commercialization is prohibited, and only plant material unsuitable for propagation may be transferred to other authorized research institutions.

While the authorization positions Embrapa as a key technical contributor, it also underscores how tightly constrained hemp activity remains. Cultivation is still confined to controlled research settings, with no pathway for farmers or processors to participate.

### Court deadline extended again

Those constraints were reinforced in late November, when Brazil's Superior Court of Justice again extended the deadline for hemp rulemaking. At the request of the Attorney General's Office, the court granted Anvisa and the federal government until March 31, 2026, to finalize rules covering the importation of low-THC cannabis seeds and cultivation for medicinal and scientific use.

The extension replaced a September 2025 deadline that regulators failed to meet, following a 2024 ruling that low-THC cannabis does not fall under Brazil's Narcotics Act. Researchers and industry stakeholders have warned that repeated delays slow research and prevent Brazil from making science-based decisions about domestic production. Hemp remains unrecognized for non-medical uses, leaving fiber, grain, and other industrial applications outside the regulatory frame. Absent clearer signals, investors and farmers remain sidelined, waiting for rules to catch up.

## Embrapa presses for higher THC limit to unlock hemp research

**B**razil's leading agricultural research institution, Embrapa, is urging regulators to raise the national THC limit for hemp from 0.3% to 1.0% — a shift it says is essential if Brazil is to compete with neighbors such as Argentina

The change could unlock industrial, medicinal, and research-driven opportunities, the agency said during a recent expo in São Paulo.

### Why 1.0% matters

Raising the limit would immediately expand the range of hemp genetics available to Brazilian farmers. A 1.0% cap also makes CBD production more economical because CBD concentration rises proportionally with THC in most cultivars. The change would also protect farmers from crops going "hot," or over the 0.3% limit, which can mean financial losses.

Finally, a higher threshold would also allow plant breeders to develop more region-specific varieties, accelerating R&D that has been stalled by regulatory constraints.

Many countries still anchor hemp regulation around a 0.3% THC limit, a limit widely used in North America and parts of Europe, but a growing group has moved to a full 1.0% to give farmers more leeway.

### Stuck in neutral

Despite its mandate to lead agricultural innovation, Embrapa still lacks authorization from federal health regulator Anvisa to cultivate cannabis for scientific purposes. Researchers must rely on partnerships with associations to access plant material, slowing progress at a moment when competitors are scaling up.

Lilia Salgado, Deputy Head of Research and Development at Embrapa, said Anvisa will need to set clear rules for plant yield, THC levels, and chemical composition — standards that are essential for producing the plant-based active ingredients used in medicines.

Advocates say failing to update THC limits and approve cultivation keeps Brazil dependent on foreign APIs and blocks development of an industry that could benefit both large agribusinesses and family farms.

The agency said raising the THC threshold is one of the few short-term steps that could move the sector out of paralysis. Embrapa says it is ready to scale research, expand breeding programs, and regionalize production once the rules allow it.



The ECJ is located in Luxembourg

## EU court will decide fate of Italy's hemp flower restrictions

Italy's long-running dispute over industrial hemp flowers appears headed toward a resolution that favors the sector after the country's Council of State referred the issue to the European Court of Justice (ECJ).

The move places the matter squarely in the hands of judges who have repeatedly affirmed that hemp flowers and CBD are lawful agricultural products under EU rules. A ECJ finding in favor of Italian stakeholders should mark a final turning point against Italy's resistance to the EU's established framework for hemp flowers and CBD.

By sending the case to the ECJ, Italy's highest administrative court effectively acknowledged that national rules restricting hemp flowers may conflict with EU law, particularly in light of the Kanavape ruling, in which the ECJ held that CBD is not a narcotic and that member states may not block the free movement of hemp-derived products legally marketed across the EU.

### Structural questions

Two structural questions lie at the heart of the referral. First: Does Italy's Security Decree unlawfully override the country's own 2016 hemp law by treating certified industrial hemp flowers as narcotics regardless of THC level? Second: Do the narcotics provisions – by treating hemp flowers, leaves, oils and resins as controlled narcotics, regardless of THC level – breach EU rules on agricultural goods, competition, and the free market?

These conflicts, the Council of State held, raise serious concerns that only the ECJ can resolve.

"This means that Italy—which in some way created this inflorescence sector—will definitively establish whether it is legal or not, with a ruling that will be binding on

all member states," lawyer Giacomo Bulleri of the Rome-based law firm Legance told *Dolcevitonline*.

Bulleri said the order's suspension "cannot fail to have a domino effect" on ongoing criminal proceedings, predicting that judges around the country will attach their cases to the ECJ process rather than issue contradictory decisions.

### Advances legal certainty

Industry organizations immediately welcomed the decision. Italy's Associazione Canapa Sativa called it "a victory for the Italian supply chain," noting that EU law has never distinguished between hemp flowers and other plant parts when THC is within permitted limits.

"This is a decisive step," said Mattia Cusani, president of Canapa Sativa Italia. "The Council of State has identified the Italian anomaly and asked the European Court of Justice whether it is really possible to target only the inflorescences when the EU makes no distinction between plant parts and THC levels are minimal. For businesses and retailers, this means a concrete prospect of legal peace of mind and protection of the supply chain, in compliance with European regulations."

The referral caps a turbulent legislative arc. Italian authorities tried repeatedly to reclassify hemp as a medicinal plant over the last few years, restricting use to seed and fiber. Associations challenged those limits, leading to a February 2023 TAR ruling that annulled the restrictions, declaring that hemp uses cannot be curtailed without scientific justification. The government of Giorgia Meloni appealed, bringing the case to the Council of State—only for the judges to escalate it further to Luxembourg.

## Drug seizures fuel fears among Italian hemp stakeholders

A record haul of more than 100,000 cannabis plants seized in Sardinia in 2024 is raising alarms that Italy's intensifying drug crackdown is spilling into the industrial hemp sector, with farmers warning that legitimate crops are increasingly at risk. Italy's Central Directorate for Anti-Drug Services reported that authorities seized 100,336 plants on the island last year, up 32.6% from 72,698 in 2023. Roughly two-thirds of all plants seized nationwide were found in Sardinia.

Some industry and farming sources argue that part of this volume may include industrial hemp misidentified as narcotics. Producers near Sassari said their crop had been inspected and cleared as legal earlier in the season, only for a later operation to classify the same field as "planted plants for narcotic purposes." Marijuana is illegal in Italy; hemp, grown under strict THC limits, is not. Yet growers say the distinction is being inconsistently applied.

### The Sassari raid

In the Sassari raid, the Guardia di Finanza said it identified and destroyed 276 kilos of dried cannabis flowers and 2,000 plants. The Sardinia Cannabis Association challenged the operation, noting that Carabinieri in the Ozieri comune and the NIPAF environmental/agri-food investigative unit had recently inspected the same company and, using rapid field tests, confirmed the cultivation was fully legal. "How is it possible that for one law enforcement agency it is industrial hemp and for another, after seven days, it suddenly becomes a narcotic?" the group asked.

Sardinia has spent several years attempting to build a structured industrial hemp industry focused on fiber, grain, land reclamation and phytoremediation. A 2022 regional law set rules for sowing and processing, signaling long-term support for the crop. For investors and supply-chain companies, Sardinia has been viewed as a bellwether for Italy's hemp potential, offering a favorable climate, available land and political backing.

But with enforcement actions rising and agencies applying conflicting interpretations, farmers say the risk of having legal hemp fields misclassified as illicit cannabis is increasing—introducing new uncertainty at a pivotal moment for the regional industry.





South African President Cyril Ramaphosa

Photo: GCIS

## South Africa activates seed law, laying groundwork for growth

South Africa is activating a long-delayed law on plant variety and seed quality, the clearest signal yet that it intends to enable large-scale production of industrial hemp.

The law, the 2018 Plant Improvement Act, replaces a regulatory framework dating to 1976 and updates South Africa's system for managing plant varieties, seed quality and commercial cultivation. It takes effect Dec. 1, 2025, under a recent proclamation from President Cyril Ramaphosa.

Analysts said the move, combined with a 2022 declaration that recognized hemp as a protectable variety, establishes the legal foundation for a modern hemp

industry built on certified seed, traceability and regulated market access.

### Modernizing the framework

Although signed in 2019, the Plant Improvement Act was never fully implemented. The law creates a national listing for plant varieties, sets quality standards for seed and propagating material, and requires registration of businesses that grow or sell those materials.

It also governs the evaluation of new varieties, oversees their import and export, and brings South Africa into line with international plant-breeding and seed-

certification practices.

While the framework applies to all crop sectors, its significance for hemp is direct: hemp's inclusion in the national register means varieties can now be developed, certified and commercialized under formal rules instead of interim or ad hoc permits.

Government officials have said the strengthened system will improve the reliability and quality of seed supply, support sustainable crop production and help smallholder farmers transition into mainstream markets.

### Clarity, finally?

For hemp producers, the new rules could bring long-needed clarity to a sector that has operated under fragmented licensing and shifting interpretations of what constitutes low-THC cannabis.

Clearer standards for seeds and planting material are expected to benefit companies preparing to supply fiber processors, develop hempseed food and oil products, or enter industrial flower markets.

Administrative delays and shifting regulatory guidance have slowed early investment in the country's hemp sector.

Ramaphosa's recent proclamation follows the activation of the 2018 Plant Breeders' Rights Act earlier this year, part of a wider effort to modernize South Africa's system for managing plant genetics and agricultural innovation.

It also comes as the government continues to decriminalize private cannabis use and develop a commercial hemp and cannabis framework that has been discussed for years but bogged down by bureaucracy.

Industry groups say the new laws offer a clearer path forward but caution that progress will depend on follow-through, including rules on THC thresholds and cultivation permissions.

## But the country's hemp sector still faces major challenges

South Africa's fledgling hemp sector continues to grapple with foundational challenges nearly three years after the government issued the first commercial cultivation permits, according to experts speaking at a recent industry webinar. Despite growing optimism, the industry remains far from establishing a viable value chain.

In the webinar, hosted by the Mpumalanga Green Cluster Agency, a sustainability and innovation initiative that promotes green economic development in South Africa's Mpumalanga province, project representative Jan Alberts acknowledged that high input costs, limited infrastructure, and poor seed adaptability continue to hinder hemp production.

"Although the industry has had a slow start, we're beginning to better understand

what is required for growth," Alberts said.

Siphe Zantsi, agricultural economist at the Agricultural Research Council (ARC), said that while South Africa has more than 1,000 licensed hemp producers, fewer than 30% are active, attributing the low participation rate to the limited availability of certified seed, a cumbersome cultivar registration process, and a lack of access to credit.

### How risky?

"Financial institutions still see hemp as a risky crop that has yet to prove its commercial potential," he said.

Industry figures argue that progress will remain slow until policymakers provide clear, consistent support. Phivo Artemides, sustainability specialist at Hempo Sapiens, said that South Africa could learn from

Europe, where hemp is eligible for subsidies under the EU's Common Agricultural Policy.

The lack of downstream buyers and transparent contracting has further discouraged growers, according to Zantsi. "We need reliable markets with clear agreements between producers and processors," he said, noting that even successful trials have struggled to transition into full-scale operations.

Recent regulatory uncertainty has added to the sector's instability. Earlier this year, South African hemp stakeholders faced confusion over a government directive that effectively banned hemp-derived food and CBD products. The Department of Health reversed the measure in March 2025 after industry backlash, pledging broader consultation on future rules.



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## Rachel Payne

Member of Parliament  
Legalise Cannabis Victoria; member for South-Eastern Metropolitan Region

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## HempBlock International

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