

## America Is Growing 8X The Amount Of CBD Hemp It Can Consume – And Prices Are Crashing



**By Chase Nobles, Co-Founder at [Kush.com](https://www.kush.com)**

If you're farming hemp this year, it might be a good time to panic. The US can only reasonably consume 22.5M lbs of 10% CBD Hemp in a year, and we're currently growing closer to 180M. That's 8X what we need which is leading to a massive price crash.

### The Math

It's time to do some simple math to outline the situation. These numbers are rough estimates used strictly to make a point. If 50% of the US population (327M) consumed 10mg of CBD per day then we would consume 596,775 kg per year as a country and those consumption numbers are generous.

According to HempBenchmarks.com, there are over 400,000 acres of permitted land for hemp farming in the US. Let's assume that maybe 30% of that acreage was actually planted. Which would mean around 120,000 acres.

Let's conservatively assume each acre produces an average of 1,500lbs / acre. This would yield 180M pounds of biomass. 1lb of 10% biomass at 8% moisture yields around 0.026kg of isolate. This means that 180M lbs of biomass would yield 4.7M kg of isolate which is around 8x more than we need or can consume.

The processing capacity of the industry would need to be ~500,000lbs of raw material everyday for a year to extract that much material. Fortunately, the processing capacity is already there in the US which means that we should be able to process this year's harvest strictly looking at the numbers. The real elephant in

the room is why would you. The price is going to drop through the floor on biomass and farms are just now starting to realize it.

In July, we saw an average price per percentage point of \$3.94 on 10% raw CBD material through our wholesale trading platform, Kush.com. Current purchasers on the platform are expecting the price to drop below \$2.30 prior to harvest season due to early harvests, and then things are going to get ugly starting around October 1st.

#### How We Got Here

This isn't the first time we've seen this in the Hemp and Cannabis industry. In recent memory, this happened on the Washington and Oregon cannabis market, and we're seeing the exact same thing in the hemp industry.

Here's the standard sequence that leads to the price crash:

1. Legalization occurs suddenly
2. Prices spike due to immediate increase of demand and limited supply
3. Farms raise capital and universally increase production based on inflated prices
4. Due to the seasonality of farming no one knows how much other farms are producing  
Unfortunately, everyone ramped production at the same time
5. Harvest occurs, prices crash
6. Farms go out of business

The price crash should only happen for around 18 months. Unfortunately, in Oregon and Washington price crashes tend to last around 36 months. Prices in the Washington cannabis market only started to stabilize this year after 3 years of consistent price decreases. The reason it takes so long for price to stabilize is because after suffering losses the first season, farms grow a second and third year and focus on efficiency in order to dig themselves out of a hole and survive.

In this cycle, or should we say death spiral, many farms go out of business, but in that process they are typically bought by a naive purchaser who repeats the same mistakes of over production without building downstream demand or growing under contract.

#### Who Has The Power?

This is simple. Brands with distribution own the market. The brands that land large purchase orders control the market. Their purchase order prices don't tend to change, but decreasing their input costs (COGS) increase their margins.

#### What Will Happen Next?

Prices wholesale input prices will crash. This means everything from raw biomass (extraction material) to crude extracts and distillate / isolate prices will crash.

Currently the spot price for bulk CBD Isolate is around \$3,500/kg which is down from \$5,400 in May. Currently the spot market matches the contract market as well at \$3,500/kg which means suppliers are already squeezing the price as low as possible in order to make sales. We consider those data points to be a telling forecast for the future, and it's not good for suppliers. Additionally, we're seeing this price drop across all hemp product categories.

The USDA has provided guidelines for the importation of seed stock to the United States, but has yet to create guidelines for export. The USDA MUST prioritize creating exportation infrastructure else crops and material will become a total loss for many farmers in the USA.

If US suppliers can export, prices will raise across the hemp industry setting us up to be a global leader.

#### How to Handle The Fall Out

As a farm, you should aim for securing purchase contracts now. We know the prices are currently high, but if you can afford to undercut the current contract market then you can lock up demand now rather than wait for the price to crash below the cost of production. Additionally, we recommend looking deeper at tolling and split contracts for extraction. This way your raw material has a longer shelf life and is easier to store incase liquidity is hard to find in the short-term.

# Flood of hemp harvest hitting the market could sink price, profits for farmers

by April Simpson and Sophie Quinton, Stateline, Updated: September 16, 2019

RYAN C. HERMENS / MCT

ORLINDA, Tenn. — Standing between two rows of thigh-high hemp crops close to the Tennessee-Kentucky border, the retired owner of a New Hampshire convenience store cheerfully recalled why he chose to grow his first hemp crop this year.

Barry Paterno, 67, is a gardener, not a farmer — he likes to grow tomatoes and corn. But he saw on the local TV news that an acre of hemp could [bring in as much as \\$50,000](#) a year. Paterno, who now lives in Tennessee, was inspired to begin his farming career.

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Stories like his have been repeated across the country: Farmers are rushing to plant newly legalized hemp in hopes of striking it rich, or at least making a good chunk of change in a period of low commodity prices. Hemp is a nonpsychoactive form of cannabis.

But as growers across 34 states start to harvest as much as half a million acres of hemp this fall, many newcomers have no idea who will buy their crop or even who will prepare it for sale. Paterno, speaking during a tour of a farm owned by an organic farmer with experience growing marijuana, said he doesn't know what kind of return he'll get on his \$8,000 investment.

So far, Paterno has lost money on seeds that didn't sprout and flower as promised. Some of the seeds were males even though he thought he was purchasing only the females that produce the cannabidiol, known as CBD, that he wants.

Wearing dark sunglasses, the slender first-time grower said he's lost 30 pounds working 10-hour days pulling weeds and looking for pests across his 2-acre field. After the harvest, he plans to dry his hemp on his breezy wraparound porch in Middle Tennessee and store it, he said, until there's less hemp on the market.

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“Be prepared to store it till spring,” Paterno said. “No one will have it by then.”

Despite the buzz around hemp — particularly hemp CBD, a cannabis compound that's become a wellness craze — hemp is harder to grow, process, and sell than many first-time growers realize. And the flood of hemp hitting the market this year likely will lower prices and profits.

“It's a high-risk crop — it's hard to find markets,” said Matt Cyrus, the president of the Deschutes County (Oregon) Farm Bureau and a farmer who has been growing hemp for CBD since 2016.

“It's not like corn or wheat or other commodities, where you just go down to the local grain elevator.”

## **The hemp boom**

The most recent farm bill, which President Donald Trump signed in December, makes hemp legal to grow in states with hemp programs. Twenty-one states already had hemp pilot programs under a previous version of the farm bill. This year, 13 states joined them.

Since legalization last year, licensed acreage has increased more than 455%, according to the latest U.S. Hemp License Report from advocacy organization Vote Hemp.

“Right now, farmers are making multiples of the profit they would make in corn or anything else,” said Ian Laird, chief financial officer and general counsel of Hemp Benchmarks, a Stamford, Conn., based financial business and industry data provider. But given the huge increase in hemp production this year, lower prices are on the horizon, he said.

Kentucky approved about 60,000 acres and more than 6 million indoor square feet for hemp cultivation this year, almost four times the acreage and 10 times the indoor square feet approved last year, according to the Kentucky Department of Agriculture. The state licensed about 1,000 growers this year, up from just over 200 last year.

Oregon licensed more than 62,000 acres and more than 10 million indoor square feet for hemp cultivation, almost six times the acreage and 10 times the indoor space licensed last year, according to the Oregon Department of Agriculture. Over 1,900 growers are licensed to grow hemp, more than triple last year's number.

Tennessee licensed roughly 4,700 acres of hemp last year and already more than eight times as much — 51,000 acres — so far this year, according to the Tennessee Department of Agriculture. The number of licensed growers increased nearly 1,500% this year, from 226 to 3,600.

Getting a hemp farm started can cost tens of thousands of dollars, and harvesting isn't cheap. Hemp farmers can start seeds in a greenhouse, lay down a sheet of plastic mulch, and plant the seeds and harvest the crop by hand. Growers are scrambling to find field workers amid a broader [farm labor shortage](#).

Meanwhile, banks are still leery of lending to customers who are growing a form of cannabis — which at certain levels of THC is still illegal under federal law — and entering a brand-new, risky market. Hemp is still a brand-new crop, without established

planting, fertilizing, and disease-repelling protocols. Some experienced farmers have never seen a hemp plant, let alone know how to grow one.

Farmers battle weeds, pests, crop loss, and uncertainty about when to harvest their crop to assure the levels of the psychoactive compound THC in the flowers stay below the legal limit.

After the harvest, growers face a drying phase. Without an immediate buyer, they need storage space. All the while, mold can grow and the level of CBD, the legal chemical that makes the hemp valuable for use in extracts, can decline.

Experts who watch the industry expect prices to drop as more hemp hits the market.

Cyrus, of the Deschutes County Farm Bureau, said he sold his hemp CBD crop for around \$40 a pound last year. He expects that price to drop closer to \$20 or even \$10 this year.

On the other hand, the hemp market is growing. New Frontier Data, a technology company focused on the cannabis industry, forecasts \$1.8 billion in U.S. hemp sales this year and as much as \$5 billion in 2022.

And Beau Whitney, the firm's vice president and senior economist, said that if farmers struggle to get their crops to market, there's less of a chance that the market will be saturated and prices will crash. He expects prices to stay stable in the short term, but plummet in the long term as the supply chain matures.

Many farmers face a more immediate problem: As harvest gets underway, they don't yet have a buyer lined up.

## **Have a long-term plan**

Earlier this month, first-time hemp growers flocked to the Southern Hemp Expo, held in a massive arena south of Nashville that hosts annual rodeos and guitar shows, hoping to figure out how to sell their crops. They asked around, looking for processors and buyers. Some showed industry insiders on the expo floor pictures of their crop and asked them when to harvest it.

Meanwhile, speakers on the expo stage swung between lauding hemp as the greatest opportunity in agriculture to forecasting that loose regulations and possible market saturation will cause investors to lose money.

"If anything, I found it a bit encouraging that the so-called experts don't really seem to have a better grasp on what's going on with the market than anybody else," said Chris Tuggle, whose parents have planted 20 acres of hemp and invested \$30,000 in their venture outside of Bell Buckle, Tenn.

Experts, including state agriculture officials, have for months been urging growers to get buyers lined up for their crops as early as possible. A lot of statistics indicate that farmers are instead thinking of hemp as a field of dreams, Whitney said in a presentation at the expo: They'll plant the hemp and the demand will come.

"But in reality, farmers really have to figure out their supply chain, what their product line is, what their target market is — before they even plant it," Whitney said.

"Otherwise, they may be setting themselves up for disaster."

Some farmers say that kind of planning is unrealistic.

“Every speaker starts out with, ‘Don’t put a plant in the ground unless you have a buyer,’” said Michelle Shelly, a first-time hemp grower in Liberty, Tenn. “As a grower, I don’t see how someone would buy my product, though, if I don’t know how to grow it.”

State agriculture officials say their departments aren’t set up to help connect individual sellers and buyers. “Postharvest, we’re not really involved,” said Will Freeman, spokesman for the Tennessee Department of Agriculture.

Sunny Summers, the cannabis policy coordinator at the Oregon Department of Agriculture, said she’s received messages from farmers who have grown hemp but don’t know how to sell it. All she can do is send them a list of hemp handlers registered in the state, recommend they reach out to Oregon State University’s new Global Hemp Innovation Center, and tell them to talk to others in the industry.

GILLIAN FLACCUS / AP

A team of Oregon State University employees spreads hemp seeds in a field using a tractor at a research station in Aurora, Ore., that’s part of the university’s newly announced Global Hemp Innovation Center.

Some in the industry are trying to set up marketplaces and cooperatives that will bring buyers and sellers together.

The [Southern Oregon Hemp Co-Operative](#), a group with some 50 members based in Jackson County, has been helping farmers access seeds, irrigation help, and equipment — and try to find buyers. Connecting buyers and sellers is probably about 60% of what the co-op works on, founder Mark Taylor said.

## **Saving the family farm?**

Yet, many first-time hemp farmers are undeterred. On the Sunday after the expo, three busloads of hemp enthusiasts — about 150 of them — paid \$100 a head to tour two sprawling hemp farms in Middle Tennessee.

There were old farmers, new farmers, and those who professed farming ran through their blood even if they lacked firsthand experience. They traveled from as far as Georgia, Mississippi, North Carolina, and Virginia to gather information and pepper experienced farmers with questions.

At the second stop, attendees lunched on pork from a visiting food truck. While eating a sloppy Joe and baked beans, Alice Bolden, a financial officer with a [Georgia hemp company](#), compared the dawn of hemp to the cotton boom. “This is the first time to be here in the United States and to watch the world change.”

On a hot, sunny day, these hemp believers walked up and down rows of hemp crops and imagined a future where hemp saved the family farm and replaced staples like paper, plastic, and cotton, just as they acknowledged that the price of hemp will eventually collapse.

Even the tour guides with more farming experience don't have all the answers, Paterno said. But he soaked up the advice. "Anybody who wants to go into this better research very carefully."

*Stateline* — a project of the Pew Charitable Trusts — provides daily reporting and analysis on trends in state policy.

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**April Simpson**

The Inquirer Business Weekly Newsletter

# U.S. hemp harvest brings hope to some farmers, heartbreak to others

By  
Jean Lotus



Hemp is ready to be harvested in Pueblo, Colo., but farmers might have trouble finding a buyer or processing the crop. Photo by Jean Lotus/UPI

DENVER, Oct. 3 (UPI) -- A glut of CBD oil on the market, severe weather and a complex harvesting process will make this year's first mass hemp crop in 80 years in the United States a disappointment for many farmers.

As harvest season winds down and winter frosts threaten the northern United States, hemp is proving to be a complicated plant for farmers to harvest and process. Buyers for the crop are tapped out, which is driving prices down, industry observers say.

About 230,000 acres of [hemp was planted](#) in the United States this summer, but only about 40 to 60 percent, or 115,000 to 138,000 acres, will be harvested, predicts Vote Hemp, a Washington, D.C.-based advocacy group.

"A significant number of farmers rushed into farming hemp without having a plan in place," said Eric Steenstra, president of Vote Hemp. "Since we're not a commodity crop yet, it's challenging for people to take this crop to market. You can't just sell it like corn or soybeans yet."

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About 79,000 hemp growing licenses were obtained this year in states where hemp was approved for 2019.

#### **Weather hurts**

Hemp has taken off among farmers in Oregon, but wet weather and mold damaged much of the crop, said "Farmer Tom" Lauerma, who runs the Vancouver, Wash.-based Hemp Farming Academy, an online farming course.

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Plants in Oregon this year were crammed too close together, causing mold and powdery mildew. Hail in the eastern part of the state and higher-than-normal rainfall also was disastrous, Lauerma said.

"There's no guarantee in agriculture. You just have to be prepared to withstand the worst-case scenario," he said.

In Tennessee, mold also dampened the hopes of many of the 3,500 farmers who applied for licenses to grow the crop, said Harold Jarboe, who also is known as The Old Hemp Farmer.

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"This summer might have been the perfect storm as far as going and wrecking people's dreams," Jarboe said.

He and his partner have raised hemp for five years, "losing our shirts" for the first two. They now run Tennessee Homegrown, an online and retail CBD products company.

Jarboe said the hemp rush in Tennessee was like a "green fever," with people convincing themselves they could earn "\$50,000 an acre," he said.

But many farmers had their crops damaged by heavy spring rainfall followed by extreme heat into October.

Even worse, farmers who had contracts with extractors ended up empty-handed when many of the extractors ran out of money and reneged, Jarboe said.

Extractors use ethanol to remove CBD oil from the plant matter in a technology originally developed by perfumers. Extractors typically pay farmers in cash or oil, or offer a split.

### **Complicated harvest**

The hemp harvesting process is complicated and labor-intensive, which was a surprise to many novice farmers.

Harvesting the plants too late can cause the levels of THC to rise above .3 percent, making the hemp technically illegally grown marijuana -- and most state departments of agriculture will destroy it.

"Farmers are calling about their labor expectations, saying they had no idea it was going to take this much work," said Nick Brubaker, owner of Denver-based Canna Brothers Distribution. The company's employees shuck the plants in their Denver warehouse to trim the CBD-rich flowers.

"There seems to be an underestimation of what it takes to get to that finished product," Brubaker said. "Maybe the farmers grew corn and had a sales avenue for that. Now they're looking for labs."

Drying plants take up a lot of room -- about 38,000 cubic feet for an acre of hemp. Plants must be kept in a climate-controlled space for weeks -- or mechanically dried with blowers or a nitrogen infusion process.

### **CBD oil glut**

A lack of extractors has been called the "bottleneck" of the hemp industry, but other economic forces also are at work, said Chris Fontes, founder and CEO of Oregon-based Hemp Exchange, an online buying and selling platform.

A glut of CBD oil exists in the market, which is pushing prices down, Fontes said.

Since May, the price of isolate, a pure CBD derivative substance, fell by half from around \$6,200 per kilogram to around \$3,100 per kilogram in Colorado, according to PanXchange, a hemp pricing service.

CBD oil started to accumulate on the market when online CBD sales ground to a halt this spring after credit card processing companies stopped working with CBD sellers. [Most CBD sales had been online](#), Fontes said.

Tennessee Homegrown's Jarboe confirmed that online finance service PayPal stopped transactions for his CBD products and even froze his accounts for months.

Banking uncertainty is dampening financial transactions for both THC-containing marijuana and hemp.

However, the U.S. House of Representatives recently passed the SAFE banking bill, which may standardize banking for all cannabis products. The bill has been introduced in the U.S. Senate.

The second cause of surplus CBD oil is the slow movement of the [Food and Drug Administration](#) toward approving it as a dietary supplement, Fontes said.

The FDA still says that [CBD is a prohibited substance](#) in food for humans and animals, even though in some states, such as Colorado, CBD is added to everything from coffee to kombucha to ice cream and baked into pet treats.

The agency is working to assess health risks for CBD and has [issued warning letters](#) for companies that have made over-the-top health claims that CBD can cure Alzheimer's disease, [Parkinson's](#) disease and cancer.

"Until the FDA has clarified the rules, big players who want to get into CBD are waiting on the sidelines," Fonte said.

He believes both problems are temporary and that the market for CBD oil and other products will bounce back.

The price of consumer CBD products has remained stable for the past two years, he said.

### **Extractors expand, contract**

About 2,900 permits for extractor companies have been issued in the United States, Steenstra of Vote Hemp said, and those don't even count the extractors in states such as Colorado that don't require a license.

But with all farmers all trying to sell their crop at the same time, extractors can run out of cash to buy it, and they may make low-ball offers, driving the price even lower. Some extractors have gone broke after investing in expensive equipment and not being able to sell their oil fast enough, Tennessee Naturals' Jarboe said.

Farmers who hold onto their dried product will command a bigger sale price later in the season when processors have line time, said Kris Schneider, operations manager at Strasburg, Colo.-based Biomass Isolations LLC, an extractor company.

The best hemp farmers appear to be those who formerly grew cannabis, industry insiders agree.

"The people who have more cannabis experience make nicer crops," Schneider said. "They have a handle on maintaining higher yields."

But the formerly illegal cannabis culture also can be a downside for farmers who want to honestly sell their products, Fontes said.

"There's dishonesty in this business, and it comes from a difficult crop with farmers who know nothing about it," as well as "everyone who ever sold weed in high school seeing a cash grab opportunity," Fontes said.

### **Younger farmers drawn in**

Even with the ever-present risks of agriculture, large and small farms still are betting on CBD and hemp.

Virginia farmer Brock Fleeman, 37, owner of Mountain Valley Cultivations, said he became interested in CBD because his work as a diesel engine mechanic caused joint pain, which the substance eased. First Fleeman, a father of four, applied for an extractor license, but after opening a small lab, he said, he realized the high value of the flower material. He now runs a small greenhouse.

In northern New Mexico, Denver-based GoGenics LLC is growing more than 100 acres of organic CBD hemp and hiring crews to bring in the harvest in stages, said Mary Smith, the company's president.

"We have 10 to 30 people in the fields, and we're testing several types of harvest, hand-bucking some and harvesting some with a [fixed location] combine," she said. The company sells Focl CBD dietary supplements and is rolling out a skincare line.

While some farmers have been frustrated by the complexities of growing an essentially brand-new crop, hemp enthusiasts say the crop is creating one positive change: As the [average age of the U.S. farmer](#) approaches 60, hemp appears to be a path to draw younger farmers into agriculture, possibly helping to solve a succession problem.

"There are young people who love the plant and they may expand into kale here or elderberry there, and that could lead them into sustainable farming," hemp farmer Jarboe said.

Oregon's Lauerman said he also was encouraged by the enthusiasm of younger hemp farmers in his state.

"Young people are really into healing the earth. That's why they like this plant," he said.  
"When everything goes south, people are going to need to eat -- and farmers are going to be there to feed them."

# Hemp's first year as a commercial crop is turning into a disaster with billions rotting on farms

## 'CBD craze spurred reports that you can make money overnight, and that is not the case'

The euphoria from the burgeoning prospects of U.S. hemp, grown as an alternative to mainstream crops caught in a trade war, has turned to caution.

In the first year of widespread commercial cultivation, hemp planting quadrupled as growers sought a profitable alternative to crops such as soybeans ensnared in the U.S.-China trade dispute. The hemp-derived compound cannabidiol, known as CBD, has a non-psychoactive cannabis ingredient at the center of a wellness trend sweeping the nation, showing up in everything from beauty products to dietary supplements.

While Congress approved hemp cultivation, the Food and Drug Administration hasn't cleared CBD yet for use in food and drinks, and the murky regulatory environment has limited expansion in the processing sector. Delta Separations, a Cotati, California-based manufacturer with booming sales of extraction machines used to make CBD, estimated that as much as US\$7.5 billion in hemp may rot on farms.

Cannabis industry hopes SAFE Banking Act will spark new wave of growth, especially in U.S.

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"There hasn't been the ability to install the infrastructure to support" the fledgling cash crop, Roger Cockroft, chief executive officer of Delta Separations, said in a telephone interview. "Farmers are scrambling."

Banks also are reluctant to lend to businesses that may appear to be linked to marijuana, curbing prospects for processing expansion, Cockroft said.

Congress legalized industrial hemp and CBD in 2018, clearing the way for expanded planting. Growers seeded 142,691 acres this year, according to Department of Agriculture data on Sept. 12. With some farmers probably withholding data from the government, total acres may reach 230,000, according to the advocacy group Vote Hemp.

“The market has developed and matured and expanded at such a rapid rate that the federal government is playing catch-up,” said Beau Whitney, an economist at Whitney Economics, which tracks the cannabis industry.

David Diekhoff, a farmer in Delavan, Illinois, planted one of his 1,500 acres (607 hectares) with hemp among the soybeans and corn. His grandfather grew hemp to make rope during World War II, and his son is an executive vice president at the marijuana cultivator Revolution Enterprises.

He plans to cut the flowers from the hemp plants for use in CBD and is still looking for a buyer before the harvest at the end of the month.

“I wanted to get in on the ground floor,” Diekhoff said in a telephone interview. “It’s a new crop.”

A July survey by Whitney Economics found that 65 per cent of hemp farmers failed to find a crop buyer. Since then, many have obtained contracts from companies that may face a cash crunch.

Prices for some CBD components have fallen on the Denver-based price platform PanXchange, slumping before an expected expansion in supplies. “We’re definitely seeing some downward pressure on refined products over the last few months,” RJ Hopp, the director of hemp markets at PanXchange.

A price tumble may cause financial woes for smaller processors, leaving farmers with no payment for crops, said Bourcard Nesin, an analyst covering beverages and cannabis for Rabobank.

Farmers may face more hurdles in the fields. Hemp requires specific harvest protocols, and in order for it to be used for CBD, the crop has to be dried after the collection and before CBD extraction.

“There’s not going to be all of that supply hitting the market,” which may soften a price drop, said Whitney, the cannabis economist. “Farmers are inexperienced on how to harvest this and dry this. They’ll dry it in the fields, it’ll rain, it’ll mold.”

Diekhoff in Illinois plans to store his hemp to wait for better pricing.

“I don’t worry about it,” he said. “I think it just depends on your skills of marketing.”

‘Work in Concert’

Integrated CBD owns processing equipment to handle a hemp harvest from 1,240 acres in Yuma County, Arizona, and has lined up buyers in the cosmetics and food industries, among others, for the refined ingredient.

The business model includes growing, drying and extraction capacity to “work in concert with each other,” Patrick Horsman, the chief executive officer of Scottsdale, Arizona-based Integrated CBD, said in a phone interview. “If I was only a farmer and I didn’t have processing and drying capabilities and I was trying to get capacity from third parties, I would definitely be concerned.”

Blake Butler, the executive director of the North Carolina Industrial Hemp Association, said too many farmers made a shift amid prospects for greater profit.

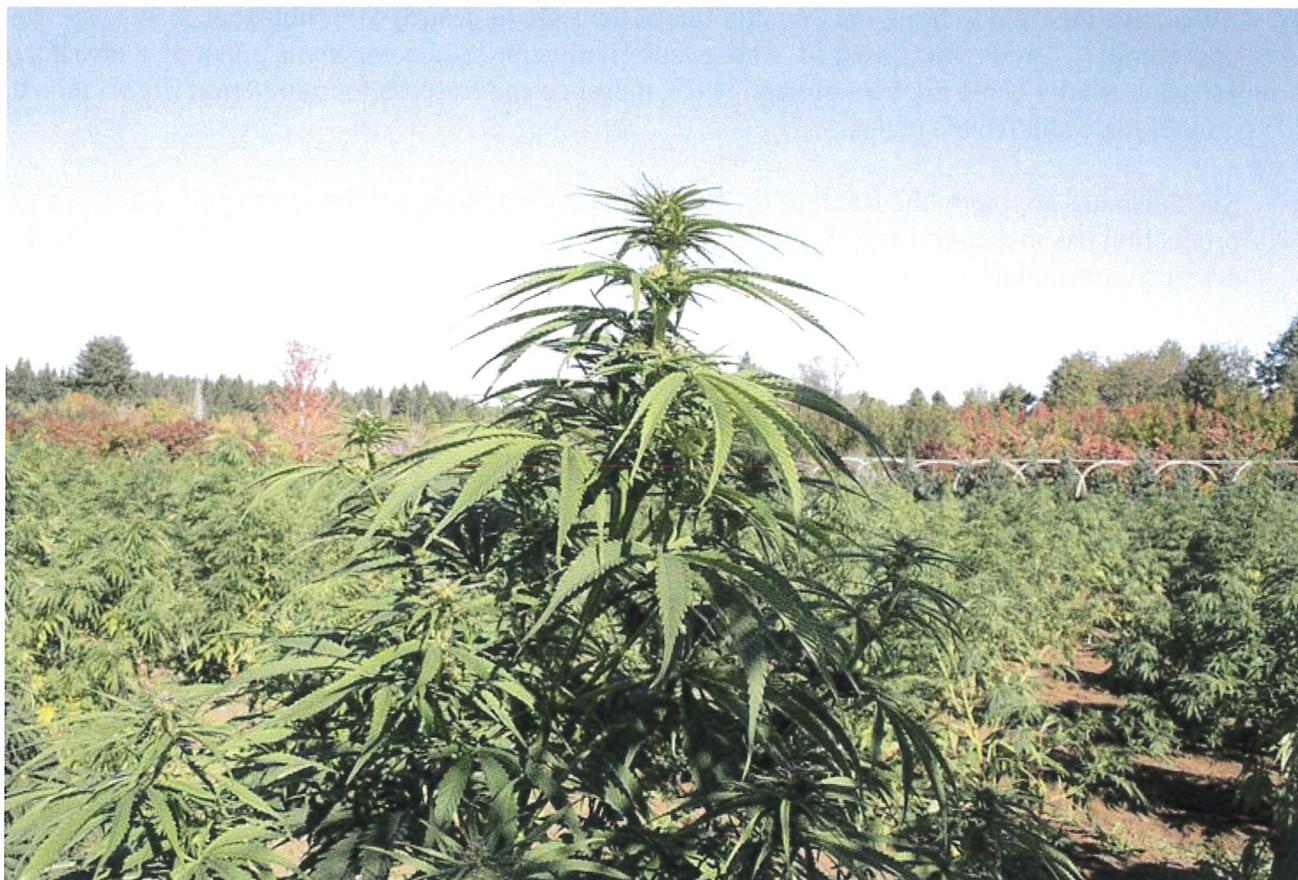
The CBD craze spurred reports that “you can make money overnight, and that is not the case,” Butler said in a phone interview. The industry will balance out as farmers plan to grow hemp for other uses.

# Hemp boom spurs cross-pollination disputes

- [By MATEUSZ PERKOWSKI Capital Press](#)

[Mateusz Perkowski](#)

- Aug 27, 2019



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The state's burgeoning hemp industry has led to disputes among growers about unwanted cross-pollination.

Mateusz Perkowski/Capital Press File

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A heightened emphasis on seed-free flowers in Oregon's hemp industry, combined with booming crop acreage, is causing legal conflicts among growers over cross-pollination.

The industry's focus on generating cannabidiol — a compound known as CBD touted for its healthful qualities — has fueled demand for female hemp flowers, which generate the substance in greater abundance.

Male flowers, meanwhile, not only contain less CBD but their presence can degrade the quality of female flowers if they become pollinated and prioritize growing seeds over producing the compound.

For that reason, inadvertent pollination of hemp crops between neighbors has spurred litigation alleging large financial losses from drifting pollen.

“You have the right to farm, but you don't have the right to destroy your neighbor's opportunities,” said Seth Crawford, whose Jack Hempicine seed company is pursuing a lawsuit accusing nearby hemp growers of negligence, nuisance and trespass for pollination from a mixed crop of male and female plants.

Such disputes are partly the result of the hemp industry's surging growth in Oregon, where production has increased from 100 acres to more than 60,000 acres in five years. A huge spike in acreage corresponds with a rush to make seeds available.

“The number of seed vendors that have popped up because they see money is incredible,” said Crawford.

In some cases, people who aren't actually hemp breeders have misrepresented their seeds as “feminized” — capable of only sprouting female plants — even though they weren't grown with that technique, said Courtney Moran, an attorney and president of the Oregon Industrial Hemp Farmers Association.

“There are males popping up in fields that people weren't prepared for,” she said.

Only non-feminized seed is available for some strains of hemp, but growers can then “rogue out,” or eliminate, the male plants from the females once they begin to flower, said Barry Cook, founder of the Boring Hemp Co. in Boring, Ore.

Growing seed traditionally, without the feminization technique, is easier for breeders, but some farmers plant the mixed seed without considering the impact on neighbors, he said.

However, if a market develops in Oregon for hemp fiber and oilseeds — used for crushing rather than planting — farmers will have to plant both males and females out of necessity, Cook said. “I think it could potentially complicate things.”

While growers can pay a great deal of attention to individual plants to maximize CBD in female flowers, it's tough to apply the same level of scrutiny to large fields of hemp, said Jay Noller, hemp leader at Oregon State University.

“It's a scale issue,” he said.

In Oregon, there is a valuable market for smokable hemp flower that's completely seed-free and has made some growers particularly cautious about exposure to pollen in recent years, said Cook. "That's where you're probably seeing more of the pressure coming."

Eventually, farmers in Oregon may decide that increasing efficiency and yields with mixed male-female fields is worthwhile, even if it does reduce the flower's CBD content, said Jerry Norton, founder of American Hemp Seed Genetics, based in Portland, Ore.

"If you chop it all up anyway, what's the difference?" he said.

For now, though, the industry's focus on seed-free flower means that farmers should be careful to acquire their genetics from reputable dealers, Norton said. "It's really buyer beware. Who are you getting your seed from, and what are they telling you?"

Even when growers are careful to use feminized seed, an occasional hemp plant will emerge with male flowers that generate pollen and result in unwanted seeds, said Crawford of Jack Hempicine.

The solution is for growers to walk their fields with a trained eye to weed out the males that may spring up, he said.

To protect against unscrupulous dealers, growers also want to eventually rely on OSU-certified seed to ensure they're getting what they paid for, he said.

Crawford is also involved in a nonprofit organization, the Oregon Cannabis Pinning Association, that's devising a pinning map to help maintain isolation distances between hemp fields and prevent cross-pollination.

"We're trying to provide it as a way to initiate conversation between farmers, because that is the only way this is going to work," Crawford said.

A new company, Willamette Valley Assured, is providing an inspection service to find and remove male flowers from within hemp fields.

"Seeing this rapid increase, we know there's a need for a third-party quality control service," said Mike Baker, the company's founder and an executive at the Pennington grass seed company.

The company's business model follows that of similar firms in the grass seed industry, which commonly relies on third party services to monitor and place acres, Baker said.

As the company becomes aware of hemp fields, it can also coordinate such information among farmers to ensure quality, he said.

"It's all rapidly developing," Baker said of the hemp industry. "These new opportunities don't come around very often."