

Marijuana startup economy booms as medical cannabis industry struggles

By KRISTIAN FODEN-VENCIL

Oregon Public Broadcasting

Imagine you're starting your own marijuana farm.

First you get land and water rights. Then you've got to find the right strain of cannabis. That can involve as much luck as science.

"There's a lot of legend and laws," said Mowgli Holmes, the chief scientific officer at Phyllos Bioscience.

"In general it's like, 'My friend Billy gave me this. And he told me that he got it from this guy. And ... this is the original thing. This is the lost cut of Panama Red from so and so in 1978.'"

Phyllos Bioscience is an Oregon startup that, for a few hundred dollars, will outline the genetic profile of any cannabis plant you bring them.

The information is great for growers — it helps farmers ensure they're not going to get sued for infringing on someone else's intellectual property.

Growers need that kind of detail, because the cannabis market is a mess. Holmes said medical consumers, for example, can't be assured the strain they buy one week will be the same next week.

"They find something and it's called 'Lemon Haze' or whatever. But then they can't get it again. They go back and they get something called the same thing, but it's not the same thing," he said. "And they can't get the same thing anywhere else even though it has the same name because people just rename things, because they don't know what they are."

Phyllos is only one of dozens of Oregon startups doing research on marijuana.

"The numbers we just



Mowgli Holmes' startup, Phyllos Bioscience, will outline the genetic profile of any cannabis plant a customer wants.

Photo by Kristian Foden-Vencil/OPB

received by phone says in the last six months there's \$60 million to \$80 million that has gone into startups," said State Sen. Floyd Prozanski, D-Eugene, who sits on Oregon's medical regulation committee.

There are all kinds of different businesses. Some are trying to perfect the process of extracting cannabis oil. Some are developing a dermal patch — so people can absorb marijuana through their skin. This January, a group of entrepreneurs launched the "Oregon Hub," a farm and research center in Clackamas County that aims to improve growing techniques by finding ways, for example, to reduce water and energy use.

Seth Crawford and his brother run "Oregon CBD" in the Willamette Valley. They're working with industrial hemp, which is federally

legal as long as it contains less than 0.3 percent of the active cannabis ingredient, THC.

Their goal is to invigorate America's old industrial hemp market by breeding plants to grow in a variety of climates.

"You're looking at humidity, mold and mildew resistance, a number of different types of potential pathogens that emerge in specific micro-climates that we try to adapt our plants for," he said.

So there is plenty of marijuana research going on in Oregon. But it's startup research — not the kind of peer-reviewed, double-blind research that's going to lead to FDA-approved medications. Thus, the benefits for patients are less direct.

Most FDA-level marijuana science is being conducted overseas. A British company recently

developed a cannabis extract called Sativex. It's been approved for to help with neuropathic pain in 28 countries — but not the U.S.

The FDA has also approved another drug called Marinol to treat nausea in cancer patients. It's made out of synthetic THC, the compound in marijuana that gets you high.

But marijuana contains a hundred compounds or more, and experts say it's the interaction between those compounds that give the plant its medical properties.

The FDA's drug approval process doesn't deal with so many compounds at one time.

So perhaps the future of Oregon's medical marijuana market will be in the form of supplements and "whole plant" edibles, rather than new FDA-approved medications.

EO Media Group assumes management of Northwest Ag Show

The EO Media Group, the parent company of the *Capital Press*, has assumed management of the Northwest Agricultural Show from Amy and Mike Patrick.

The Patricks, and Amy's parents, Jim and Shirley Heater, have guided the show for 48 years.

"It is with great confidence that Mike and I transition the event to EO Media Group," Amy Patrick said. "I believe they have a broad range of resources that can bolster and improve the show, taking it to its 50th anniversary and beyond."

Joe Beach, editor and publisher of the *Capital Press*, praised the family's management of the show.

"The Heater family built the Northwest Ag Show into an Oregon institution. In no small measure the family is the show," he said. "As a family business ourselves, we have a particular appreciation for the responsibility we have to maintain what they have created. We are happy that the Patricks and the Heaters are working with us on the 2018 show to ensure a smooth transition."

Amy Patrick has agreed to help EO Media Group through the transition period to maintain continuity. Jim Heater, show founder and longtime manager,

will continue to work with the show and provide the move-in/move-out services for exhibitors.

The 49th annual Northwest Agricultural Show will take place Jan. 30 through Feb. 1, 2018, at the Portland Expo Center.

Beach said the *Capital Press* has had close ties with both the show and its exhibitors for years, so when the show became available it seemed like a natural fit.

"We're new to the show business," Beach said, "but we bring a fair amount of promotional and management expertise to the venture, and have some exciting ideas about how we can build on the show's past successes."

Patrick reflected on her long association with the show.

"It has been my pleasure to work with so many great exhibitors during my time as manager of the Northwest Agricultural Show," she said. "The show holds a special place in my heart after growing up with the event and learning the ropes from my parents. As I move on to other career ventures, I will continue to be supportive and interested in the event; the exhibitors truly became like an extended family to me."

BRIEFLY

Coffee's on during Morning Buzz

MISSION — The public is invited to duck into the Nixyaawii Governance Center for the Morning Buzz hosted by Indian Lake Campground.

The free networking event is Wednesday, June 7 from 7:15-8 a.m. at 4641 Ti Mine Way, Mission.

Coffee is provided by The Pendleton Coffee Bean & Bistro, and breakfast treats by the hosts. The laid-back atmosphere offers people a chance to chat with others from around town.

For more information, visit www.facebook.com

Website provides resources for jobs in homecare

SALEM — Aging & People with Disabilities and the Oregon Home Care Commission have launched a new tool for individuals seeking to join the homecare workforce.

The site offers people the ability to register to attend a "New Worker Orientation." The benefits of joining the homecare workforce include paid time off, health insurance, workers' compensation, paid trainings and opportunities for career advancement.

One of the goals of the Oregon Home Care Commission is to attract a committed and diverse homecare workforce to meet the specific needs of Oregonians who are older adults and people with disabilities.

Homecare workers provide in-home services for consumers who are eligible for publicly funded in-home programs. Individuals interested in the homecare workforce should have excellent communication skills, attention to detail, flexibility, problem-solving and the ability to follow directions.

For more information, visit www.oregon.gov/DHS/seniors-disabilities/events/1927134017565972.

Solar manufacture to lay off staff, may close plant

HILLSBORO (AP) — An Oregon solar manufacturer has announced it may lay off most, if not all of its staff by July and close its Hillsboro plant.

State employment officials released a SolarWorld letter on Thursday which states that it is looking to lay off at least 500 regular employees. The May 19 letter says action is expected to be permanent.

The *Oregonian*/OregonLive reports that SolarWorld said Wednesday it would continue to operate into the future, although the letter suggests that the plant may close.

SolarWorld officials had previously said their operation was facing tough competition from Chinese companies. According to the report, Solarworld joined a trade case Thursday in hopes that a tariff or other sanctions may be placed on Chinese imports.

More records, barely, as U.S. stocks rise for seventh day

By MARLEY JAY

AP Markets Writer

NEW YORK — U.S. stocks made the tiniest of gains Friday as media companies and sellers of beauty products and food ticked higher. Major indexes added to their winning streak and record highs.

Stocks spent the day flipping back and forth between small gains and losses. Beauty products maker Ulta rose after a strong first-quarter report and competitor and Coty climbed as well. Media companies including Comcast and Disney also advanced while video game and drug companies slipped. The market has been steady in recent months, and with investors looking forward to the Memorial Day holiday Monday, trading was light.

It was the seventh gain in a row for the Standard & Poor's 500 index and Nasdaq composite following their biggest loss this year.

"Investors have been conditioned over multiple years to buy the dip any time there's a market pullback," said Jason Draho, the head of American tactical asset allocation for UBS Wealth Management. He said that's one reason stocks have been so steady lately.

The S&P 500 index added 0.75 points to 2,415.82. The Dow Jones industrial average dipped 2.67 points to 21,080.28. The Nasdaq composite rose 4.94 points, or 0.1 percent, to 6,210.19. The Russell 2000 index of small-company stocks fell 1.14 points, or 0.1 percent, to 1,382.24.

Some of the market's biggest moves were based on company earnings, and many of those came from consumer-focused companies. Ulta Beauty gained \$9.36, or 3.1 percent, to \$302.40. Costco Wholesale rose \$3.13, or 1.8 percent, to \$177.86 after the warehouse club had a strong quarter as sales and member payments both increased.

Uggs maker Deckers Outdoor turned in earnings that were stronger than expected, and its stock gained \$10.64, or 18.8 percent, to \$67.21.

GameStop's first-quarter



Singer Barry Manilow, center, gaveling trading closed on the bell podium of the New York Stock Exchange, Friday.

AP Photo/Richard Drew

results were stronger than analysts expected, but sales of new software and wireless devices were disappointing. The stock gave up \$1.40, or 5.9 percent, to \$22.22. Video game publishers also fell. Activision Blizzard lost 94 cents, or 1.6 percent, to \$58.28 and Electronic Arts slid \$1.70, or 1.5 percent, to \$112.13. Take-Two Interactive Software shed \$1.46, or 1.9 percent, to \$77.07.

The VIX, an index that is called Wall Street's "fear gauge" because it measures how much volatility investors expect, fell for the seventh day in a row. After a huge spike last Wednesday, the 27-year-old index is trading near all-time lows. It sank to 9.81 Friday. The only time it was lower was late December 1993.

The Commerce Department said the U.S. economy grew 1.2 percent in the first quarter, which was still weak but better than it originally estimated. Draho, of UBS Wealth Management, said that when the economy is steady, the market usually is, too.

The U.S. economy and stock market have both been moving up for eight years. Draho said that as a bull market gets older, stocks don't move in the same direction as often. When one stock or one sector rises and another falls, that makes the overall market flatter and less volatile.

Crude oil prices bounced back from a sharp drop the day before. Benchmark U.S. crude rose 90 cents, or 1.8 percent, to \$49.80 a barrel

in New York. Brent crude, the international standard, added 69 cents, or 1.3 percent, to \$52.15 a barrel in London.

On Thursday a group of 24 nations including the OPEC countries agreed to a nine-month extension of a cut in oil production. But energy companies, which have lagged the market dramatically this year, hardly budged. The S&P 500's energy company index is down 12 percent in 2017 while the broader S&P 500 is up almost 8 percent.

In other energy trading, wholesale gasoline added 3 cents to \$1.64 a gallon. Heating oil gained 1 cent to \$1.56 a gallon. Natural gas rose 5 cents to \$3.24 per 1,000 cubic feet.

The dollar sank to 111.19 yen from 111.80 yen. The euro fell to \$1.1176 from \$1.1205.

As the dollar weakened, gold rose \$11.70 to \$1,268.10 an ounce and silver gained 13 cents to \$17.32 an ounce. Copper fell 3 cents to \$2.57 a pound.

Bond prices were little changed. The yield on the 10-year Treasury note held steady at 2.25 percent.

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