



Brian A. Pounds/staff photographer

David Lipton, managing partner of Advanced Grow Labs, stands by the vault where medicinal marijuana will be stored during a tour of the facility being constructed at 400 Frontage Road in West Haven.

WAITING TO INHALE
An occasional series on medical marijuana in Connecticut

Medical pot bringing jobs

Construction industry benefitting with need for secure dispensary facilities

By Ken Dixon

Months before any cannabis-based products will reach patients, Connecticut's new medical-marijuana industry has already created hundreds of jobs — in construction.

Former factories are being reconfigured into secure pharmaceutical facilities for the growing, harvesting, curing and preparation of various strains of marijuana that should be delivered to the state's dispensaries by early fall.

Since the state awarded four marijuana

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producer licenses in January, an estimated \$20 million has been committed to the West Haven, Watertown, Portland and Simsbury buildings that in a few weeks will begin growing thousands of pounds of pot.

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Advanced Grow Labs medicinal marijuana growing facility being constructed at 400 Frontage Road in West Haven.

From seed to pharmaceutical

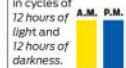
Can be grown from seed or by taking cuttings from adult plants.



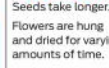
Young plants need 18 hours of light and six hours of darkness a day.



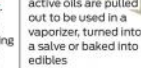
Female plants taken to flowering rooms, where buds will be encouraged to grow in cycles of 12 hours of light and 12 hours of darkness.



From cuttings to harvest takes **90 days**. Seeds take longer.



From cuttings to harvest takes 90 days. Seeds take longer.



Flowers are hung and dried for varying amounts of time.



Ground up and packaged for sale, or sent to an extraction machine where the active oils are pulled out to be used in a vaporizer, turned into a salve or baked into edibles.



FROM THE FRONT PAGE

Dispensaries lead to construction jobs

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"As far as we know, folks are busy building out facilities, getting ready to produce product," Department of Consumer Protection Commissioner William M. Rubenstein said in a recent interview. "They have six months to become operational."

In a West Haven industrial zone parallel to Interstate 95, David Lipton, managing partner of the Fairfield-based Advanced Grow Labs, is supervising the conversion of 26,000 square feet of space that will house sterile laboratories, heavily lit grow areas and budding rooms that will promote marijuana flowers, the part of the plant with the highest concentration of active ingredients.

During a tour of the sprawling, noisy one-story building last week, more than a dozen electricians, sheet-rock experts and other sub-contractors worked to transform the space. The biggest construction surprise came, Lipton said, when his structural engineer announced the roof wasn't strong enough to support the heavy-duty HVAC equipment needed to create an optimal growing climate, as well as the planned ceilings and rows of grow lights.

Steel roof beams have since been reinforced to handle the anticipated load and special, moisture-resistant sheetrock will line the walls.

Advanced Grow Labs is one of a series of new projects that are bringing economic growth, said Joseph A. Riccio Jr., commissioner of development for West Haven.

Last year, city building permits brought in \$800,000 to the city, but in the first five months of this year, the total has already topped \$1 million.

He said the medical marijuana industry is obviously fostering jobs while the region still recovers from the recession.

"This is a good boost for tradesmen," he said during a phone interview last week. "Every job is a good job."

Growing taxes

Lipton estimates his company has invested about \$2.5 million in construction and equipment, employing dozens of workers at a time, from structural and mechanical engineers, to steel fabricators to sheet-rock installers, tapers, masons, electricians and plumbers. Those workers are generating Worker's Compensation and payroll taxes for the state.

"There's definitely a positive effect on the economy," he said, adding various building and work permits from West Haven generated revenue for the city and that once up and running, the company will also pay personal property taxes.

It was on Advanced Grow Labs' cold, then-empty manufacturing floor, that Rubenstein and Gov. Dannel P. Malloy introduced the four producers who had been selected from 16 applicants.

"In early April we got our full



Indica

- ▶ Short plant that creates a relaxing feeling
- ▶ Easier to grow
- ▶ Can flower in 8 to 12 weeks

Sativa

- ▶ Taller plant known for producing an energetic high
- ▶ Can flower in 10 to 12 weeks.

Most strains are a mix of both types.

building permit and then the construction began and in about seven weeks we've completed an incredible amount of work here," Lipton said. "Hopefully, within the next few weeks we will complete some more and by early July, mid-July we will be done with construction."

From there it will be about 90 days to harvest.

"We know we're doing the right thing here," said Lipton, adding that it may be a long time before his multi-million-dollar investment is recouped. "We'll do our best to make the best product. This is a long-term business. I mean, how often do you see a start-up pharmaceutical company threaten Big Pharma?"

High-end kitchen

Lipton's grower, Klaus Poltila, standing near what will be employee locker rooms, looked around at the building renovations and thought of the future.

"Growing is the easy part," Poltila said. "Once the construction is done, we'll ramp up very quickly."

Other rooms will be used for drying and curing marijuana. The front entrance near Frontage Road features bullet-proof glass and a security nerve center. Toward the back of the building, in a room with a large walk-in safe, will be the kitchen, where the medical-grade cannabis will be ground up in a process unique to the nation.

An outside laboratory will be contracted to test batches to assure they contain the percentage of active ingredients allowed in state regulations.

The marijuana will be packaged for secure delivery to the six designated dispensaries. While traditional dried marijuana will be ready to be smoked, Lipton is planning a variety of other products. Extracting machines in the kitchen will remove chemically active oils from marijuana for use in smokeless vaporizers, baked goods and topical salves.

Thirty-two miles to the north, in a hilltop Watertown industrial park near Route 8, Ethan Ruby, CEO of Theraplant, is supervising a similar conversion to a 63,000-square-foot building, about half of which will be renovated for initial production. The operation will have a 900-square-foot safe for



Brian A. Pounds/staff photographer

Production Manager Klaus Poltila, left, and Managing Partner David Lipton at the Advanced Grow Labs medical marijuana growing facility being constructed at 400 Frontage Road in West Haven.



A drying room, insulated for sound absorption, at the Advanced Grow Labs medical marijuana growing facility being constructed at 400 Frontage Road in West Haven.

storing market-ready material.

Ruby, who heads the state growers' association, said his company has invested about \$8 million, nearly half of the estimated \$20 million the four producers have spent for the initial phases of operations.

On a recent day, Ruby counted 73 workers on-site, including landscapers, sheet-rockers and electricians.

"It's going well," Ruby said in a phone interview. "Our team that we put together has been incredibly diligent. The construction company has been on-time and on-budget during every single phase. And we couldn't be happier with local building inspectors, fire, police. Couldn't be happier. Patients should have product by the end of the summer."

Laboratory science

Theraplant will not have a kitchen to create baked goods,

but does have plans for extracting the THC and other cannabinoids that are the plants' active ingredients. About 2,000 patients have registered so far, with ailments including cancer, Parkinson's disease, multiple sclerosis, HIV/AIDS, Crohn's disease and epilepsy.

Ruby has contacted laboratories that will be required to test batches of harvested plant material, but it's too soon to sign agreements, he said.

It's too soon to determine what marijuana will cost patients, but Lipton and Ruby both said they will seek to make it competitive, or cheaper than the underground market. The website prices weed, com rates Connecticut's market at \$300 to \$400 per ounce. Participants in the medical marijuana program will be able to purchase up to two-and-a-half ounces per month.

Vaporization of the drug will

likely become the preferred delivery method, Ruby said, allowing patients to inhale the chemical compounds without actually smoking the material.

"The more health-conscious will be gravitating toward this," Ruby said. "And doctors and pharmacists will be better able to control prescribed amounts."

He feels good about the producers, including CT Pharmaceutical Solutions in Portland and Curaleaf in Simsbury, and their ability to meet market demands. "Each cares about getting medicine to the patients in a controlled way," he said. "As a producer, I'm not trying to grow a better strain than David Lipton. We're in competition with people who don't believe this is going to work."

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