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# THE TIPPING POINT PART 2

MAKE THE PLANET GREAT AGAIN

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By Frenchy Cannoli

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2017 will be the Year of the Cannabis Millionaires according to U.S. media and expert investors<sup>1</sup>. The numbers are proving them right so far. Legal Cannabis sales in 2015 were in the \$5.4 billion range. 2016 saw a 25% increase to reach \$6.7 billion. The legal Cannabis industry revenue is expected to be greater than the National Football League's with a revenue of \$12 billion last year. Very impressive considering that the first recreational dispensaries only opened legally three years ago in the U.S.<sup>2</sup>

The Green Rush is underway, and Cannabis is officially the next big cash crop, however, as mentioned in the Part 1 of this article<sup>3</sup>, the question is: which crop will generate the millionaires - Medical Cannabis, Agricultural Cannabis Hemp or Adult-use Cannabis?

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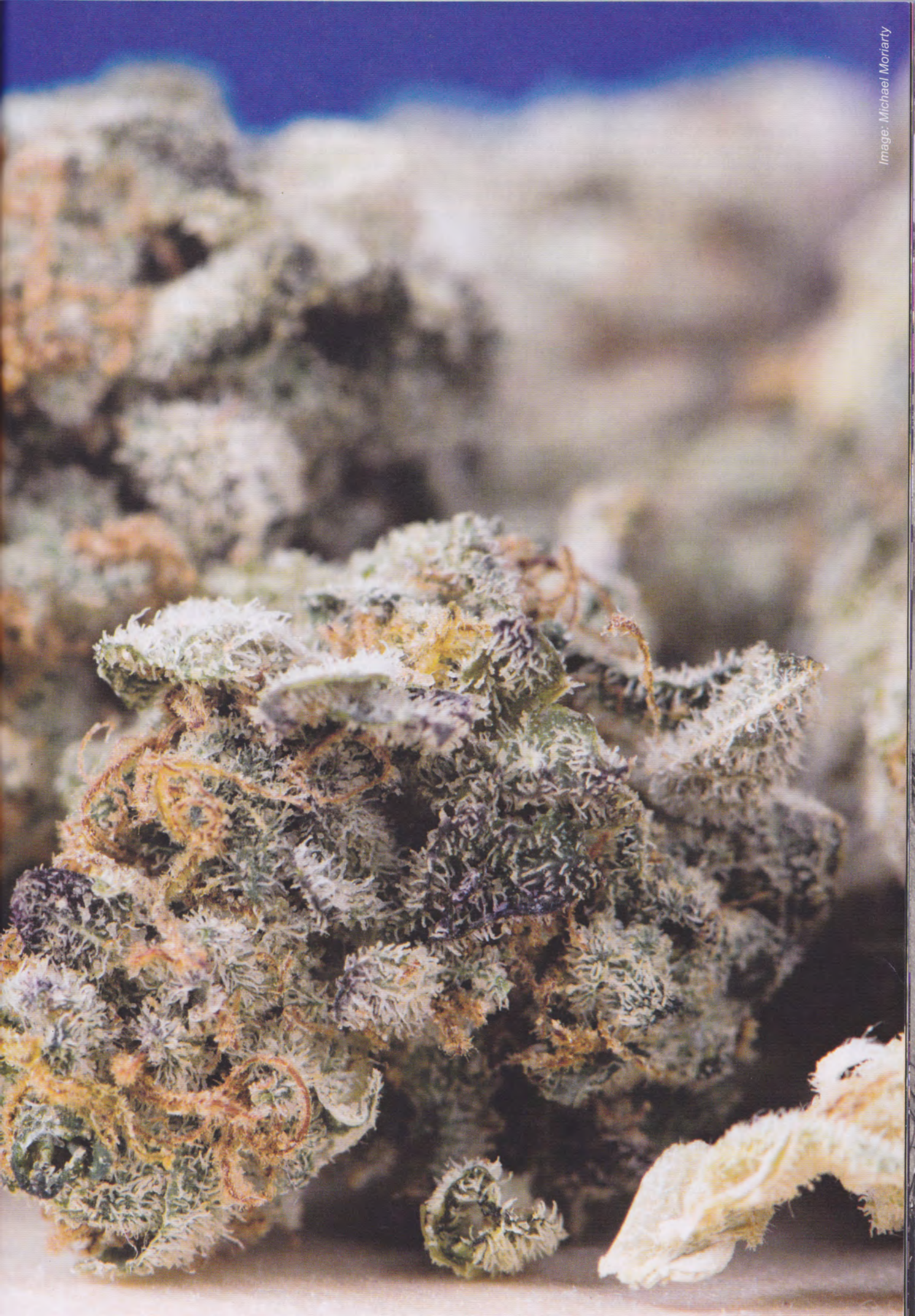


Image: Michael Moriarty



The critical word here is “crop”, which implies farming, and the mode of farming that will be used to create these Green Rushes. Since we are threatening our existence due to our irresponsible use of chemical and oil derivatives, we may want to think long and hard about our agricultural strategy. We are creating a whole new economy, a green economy centered around an agricultural product, a plant that has the potential to dramatically change the world for the better.

Before considering modern farming methodologies, the alarming state of the planet’s ecosystem and the choices we face, I would first like to review the medicinal aspect of the cannabis plant and the different options to producing a cannabis-derived medicine.

While Western medicine is accepting, grudgingly, the numerous medicinal benefits of cannabis, the plant is nonetheless regarded as a poor producer of cannabinoids, and even worse as a delivery system for cannabinoids by modern medical standards. Isolated cannabinoid compounds or synthetic derivatives are considered more reliable and less addictive.

## FACT:

Big Pharma has been trying to create a synthetic cannabinoid compound for the past fifty years. The failed research studies that were intended to further the understanding of the human cannabinoid system, have in fact become the basis for dangerous new designer drugs<sup>4</sup>; but their persistence has paid off. Last month the Drug Enforcement Administration gave preliminary approval to manufacture a synthetic cannabis medication created by the anti-cannabis pharmaceutical giant, Insys Therapeutics, who donated \$500 million dollars to oppose Cannabis legalization in Arizona during the 2016 election<sup>5</sup>. The pretense and hypocrisy shown by some companies whose goal is to control the health and well-being of humanity is frightening.

The medical and scientific community should focus on the powerful medicine that the plant offers in her natural form through her genetic diversity instead of wasting time and resources we can no longer afford.

It would make more sense to extract cannabis compounds directly from the plant, the most valuable natural resource available on the planet, and address simultaneously the two most important issues of the 21st century: the health of humanity and the preservation of the planet.

Instead scientists like Dr. Jonathan Page, who



helped sequence the THC and CBD genes to create cannabis-derived compounds, are looking to genetically modified yeast to produce THC and other cannabinoids in a more effective fashion than through traditional chemical synthesis with the belief that this research is “something that could literally change the lives of millions of people”. However, Dr. Page also believes that “right now, we have a plant that is essentially the Ferrari of the plant world when it comes to producing the chemical of interest. Cannabis is hard to beat.”

**If the latest scientific research indicates that the Cannabis plant is the most efficient producer of cannabinoids why do we need an alternative synthetic version of this natural compound when the chemical synthesis involved is complicated and expensive?<sup>6</sup>**

The most elegant solution to the problem is simply to cultivate cannabis for its medical uses and use all the byproducts the plant offers to help alleviate the demands on other natural resources, which brings us to Cannabis, the agricultural crop and farming methodology.

Irresponsible use of chemical and oil derivatives in modern agriculture have caused immense damage to our planet’s ecosystem, and some would argue is even pushing us as a species towards extinction<sup>7</sup>. We are on the verge of creating the most important industry of the future, which comes with responsibilities; we need to think long and hard about the farming strategies that will be used.

## FACT:

The production of food and fiber is increasing, and with it the use of unsustainable farming practices<sup>8</sup>. The food market is run by large industrial agricultural businesses that control the entire food production chain. Major agricultural producing countries and agricultural biotech companies are competing incessantly to dominate the world market with genetically modified crops tainted by pesticides and the arsenal of chemicals necessary to support monoculture cultivation.<sup>9</sup>

## FACT:

The loss of biodiversity, the degradation of the soil, the destruction of its ecosystem and the disappearance of pollinators like bees and butterflies is directly related to the use of synthetic materials and pesticides, a direct cause of deforestation, the

Greenhouse Effect and most of modern humanity's health issues.

The biggest challenge humanity faces today is pollution. Our saving grace may be a process known as phytoremediation which permits a few plant species to extract and concentrate within their tissues toxic metals, pesticides, solvents, gasoline, even radioactive material, to remove them from the soil and groundwater and render them harmless. There are over 30,000 sites in the United States alone that require hazardous waste treatment according to the U.S. Environmental Protection Agency (EPA)<sup>10</sup> and an estimated 16% of the total European Union land area is affected by some level of soil pollution and degradation as well.<sup>11</sup>

The Brassicaceae family of flowering plants commonly known as mustards, the willow and the poplar tree, a few types of grasses, as well as sunflowers are the plants best adapted to phytoremediation<sup>12</sup>. However, the Cannabis plant is most certainly our best choice: "There are certain characteristics of hemp, which make it very suitable for phytoremediation such as high biomass, long roots and a short life cycle of 180 days. Hemp has a very high capability to absorb and accumulate heavy metals like lead, nickel, cadmium, zinc and chromium."<sup>13</sup>

Our second most pressing concern is the preservation of the planet's natural resources and humanity's dependence on energy.

**FACT:**

Jack Herer demonstrated masterfully in his book "The Emperor Wears No Clothes" the unique and vast potential of Cannabis-the-agricultural-product as the simple solution to alleviate humanity's destructive use of the planet's natural resources:

"If all fossil fuels and their derivatives, as well as trees for paper and construction were banned in order to save the planet, reverse the Greenhouse Effect and stop deforestation, there is only one known annually renewable natural resource that is capable of providing the overall majority of the world's paper and textiles; meet all of the world's transportation, industrial and home energy needs while simultaneously reducing pollution, rebuilding the soil and cleaning the atmosphere all at the same time... and that substance is Cannabis Hemp."

Outside the potential of cleaning the planet and stopping deforestation "industrial hemp is an agricultural commodity that is cultivated for use in the production of a wide range of products, including foods and beverages, cosmetics and personal care products, and nutritional supplements, as well as fabrics and textiles, yarns and spun fibers, paper, construction and insulation materials, and other manufactured goods. Hemp can be grown as a fiber, seed, or other dual-purpose crop. Some estimate

that the global market for hemp consists of more than 25,000 products."<sup>14</sup>

Cannabis the agricultural crop, one of the first domesticated plants, was an important natural resource to our ancestors, and today, after close to a century of prohibition, Hemp has become vital to the future of our planet.

*In Part 3 we will consider Cannabis the newly legalized mild intoxicant, and the potential future of the most cultivated and most trafficked drug worldwide.*

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