



iSinitzan
our flag is a big PLUS! 


RICHEL[®]
GROUP

CANNABIS



SUMMARY

- 1. Poles of expertise**
 - 2. Regulation in Latam**
 - 3. Agronomical process and needs**
 - Mother plants
 - Clones
 - Rooting/Acclimatation
 - Vegetative
 - Flowering
 - Post harvesting
 - 4. Several capex levels**
-



1. POLES OF EXPERTISE

ipermixer

by **iSiinitzan**

bio

by **iSiinitzan**

xperience

200 +

by **iSiinitzan**





POLY GREENHOUSE

- **European specialist** in the manufacture of plastic-covered greenhouses.



POLY GREENHOUSE

An agronomic approach

- Improving light transmission
- An optimum climate
- Humidity control



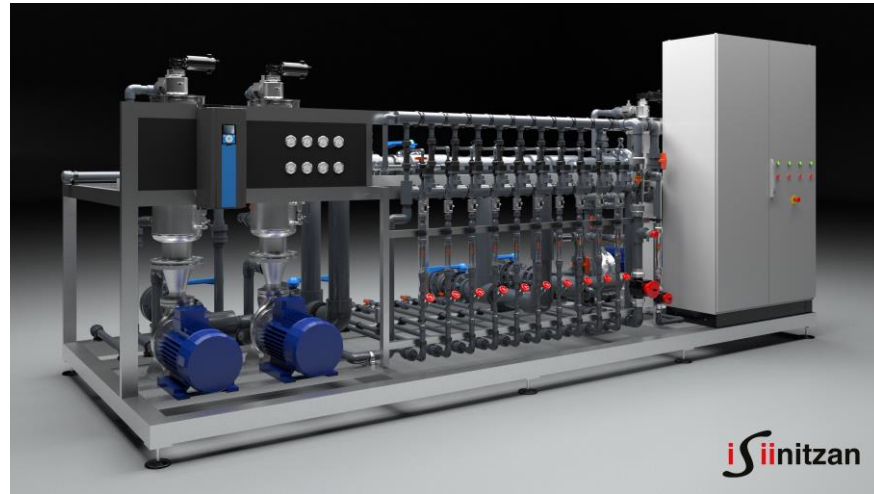
GLASS GREENHOUSE

- A dedicated Venlo **department**
- Partnerships with the best Dutch suppliers
- Our **expertise**: the work of specialists



STORAGE SHED

- Bulk storage
- Storage of industrial products
- Maintenance shelter



ipermixer

by **iSiinitzan**

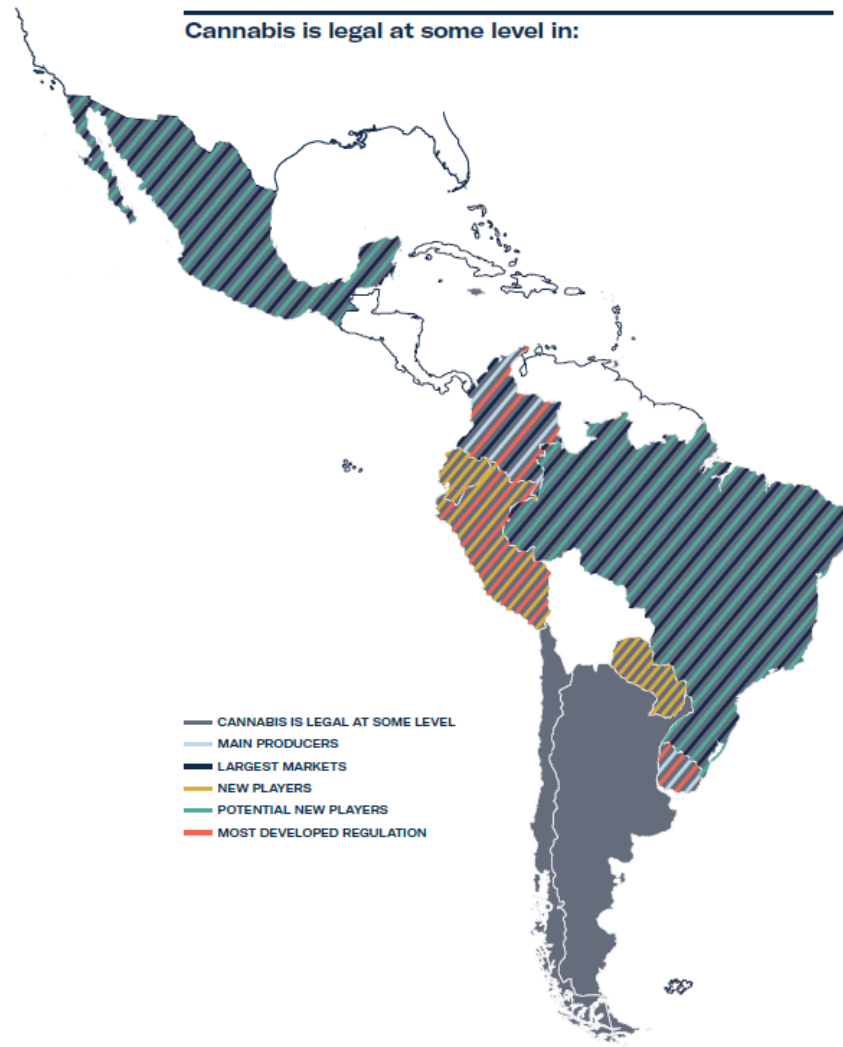
bio

by **iSiinitzan**

IRRIGATION & DOSING UNITS

- Maximum flexibility for farms with different crops that require specific and different fertilizer recipes.
- Ideal for BIO-certified farms that perform individual dosing per channel and exact recordkeeping of the amount of fertilizer.

2. REGULATION IN LATAM



2. Regulation in Latam - URUGUAY



URUGUAY

In late 2013, Uruguay became the first country in the world to fully legalize commercial cannabis production in all forms: industrial, medical and recreational. At the time, activists and legislators pushing for legalization were not focused on creating an industry nor filling state coffers with tax revenue. Instead, the conversation was centered on public safety and public health.

Implementation of the law proceeded cautiously, with business opportunities largely limited until a few years ago when investment in the industry started to become more noticeable. Fast forward to mid-2020, when the first meaningful commercial exports of both high- and low-THC cannabis flower were completed successfully, totaling almost \$8 million, and a new government is promising to boost the industry.

Uruguay's domestic population is relatively small at less than 3.5 million, which means most industry players in the country are export-oriented. Uruguay XXI—the government agency responsible for the promotion of exports—is adding fuel to the current enthusiasm, speculating that cannabis could become the country's top agro-industrial export. That optimism is similar to what was seen in Colombia when there were dreams of cannabis exports surpassing petroleum.

Current commercial opportunities in Uruguay can be divided into the three basic sectors: recreational, medical and hemp. Each offers different types of opportunities, though there might be some overlap. Research is also possible.

As of July 2020, each category reported significant increases in the number of licenses issued:

- Nine companies are licensed to grow high-THC cannabis: four for medical use and five for nonmedical adult use.
- More than 40 companies are licensed to cultivate hemp. This license allows firms to grow nonpsychoactive cannabis with less than 1% THC and harvest the flower. It does not allow CBD extraction, which requires a manufacturing license.
- Nine companies have manufacturing licenses. The scope of each of these licenses varies greatly depending on the individual case, but a summary is included below.
- Eighteen organizations have research licenses.

2. Regulation in Latam - URUGUAY



URUGUAY

EXPORTS

As of Aug. 4, 2020, Uruguay had generated nearly \$8 million dollars in flower export revenue, which positions the country as the regional leader. This figure does not include exports of products to countries in the region for compassionate use.

Almost all the flower export revenue corresponds to high-THC shipments, with only 6% related to hemp. The higher revenue for THC exports is explained by a much higher average price per gram. THC flower exports cost about \$2.50 per gram on average, while hemp flower was exported for an average of roughly 16 cents per gram.

Our analysis below is based on official customs information. We considered only flower shipments of 10 kilograms or larger that appear to have been for commercial purposes.

2. Regulation in Latam - COLOMBIA



Colombia is the Latin American country that has attracted the most attention and foreign investment for cannabis production, but much of that enthusiasm cooled in 2020.

COLOMBIA

Leading international cannabis companies such as Canada-based Canopy Growth and Aphria have halted the large capital expenditures made in the past, and largely retreated from the country. Raising capital for Colombian companies with just basic production licenses, land, teams and a plan is much more challenging today than it was one or two years ago.

The country advanced implementation of its cannabis law and companies operating there already executed some exports and started domestic sales. But the product revenue generated by the Colombian cannabis industry by mid-2020—only a few million dollars even by the most optimistic estimates—pales in comparison with the huge promises many industry players made, which included claims that Colombian cannabis export revenue could surpass that of petroleum.

The country has ideal growing conditions and a regional first-mover advantage, with regulations that promote the creation of a value-added industry for domestic and export markets. This means opportunities are real, they are just more limited than previous unrealistic expectations.

In 2019, companies exported the first CBD isolate and CBD extracts, which do not require a production quota. In 2020, the first export of seeds commenced. But meaningful THC exports remain nonexistent.

In the domestic market, sales of magistral preparations started in 2020, and the first finished product with CBD as an active ingredient obtained its registration and became available to patients as well.

The number of companies licensed to produce in Colombia is in the hundreds, but the license is only a first step in a large regulatory path to market that includes, among other things, registering genetics if the company intends to cultivate its own cultivars and obtaining quotas for high-THC production. As of July 2020:

- The government agricultural agency that oversees genetics registration shows 24 companies have finalized that requirement.
- There is no publicly available information about how many companies received commercial quotas to produce high-THC cannabis, but only a handful have reported doing so.

2. Regulation in Latam - COLOMBIA



COLOMBIA

LICENSES

Licenses constitute the beginning of a multistep regulatory process that includes securing additional permits and registrations from several government agencies. The framework was designed to ensure a rigorous medical and scientific program compliant with the international drug control conventions and to minimize diversion.

Vertical integration is not mandatory, but most leading companies appear to want to do everything from seed to sale. Specialization could become more common once the market is more developed.

Businesses can apply for the following licenses:

► *Manufacture of cannabis derivatives*

This license covers the manufacturing, acquisition, import, export, storage, transportation, marketing and distribution of cannabis derivatives. It is not required for nonpsychoactive cannabis.

It has the following three modalities:

- National use (for distribution within Colombia).
- Scientific research.
- Export.

All flower must be processed before reaching domestic patients or being exported. It can be exported only for scientific research.

As of March 5, 171 manufacturing licenses had been granted, according to the Ministry of Health. It is likely that more licenses were issued by INVIMA, the agency that became responsible at the end of 2019 for processing these applications.

2. Regulation in Latam - COLOMBIA



COLOMBIA

► *Cultivation of cannabis plants*

Two types of cultivation licenses are available:

- Psychoactive cannabis plants (THC of 1% or higher).
- Nonpsychoactive cannabis plants (THC less than 1%).

A separate license is available for seeds for commercial use or scientific research and granted by the Ministry of Justice.

As of April 30, 656 licenses were granted by the Ministry of Justice: 394 for nonpsychoactive cannabis cultivation, 164 for psychoactive cannabis cultivation and 98 for seeds.

A single entity may have only one manufacturing license granted by the Ministry of Health or INVIMA, but it could have up to three licenses granted by the Ministry of Justice. All licenses are nontransferable—though ownership of the company holding the license can change—and valid for five years. Licenses may be renewed.

The requirements to obtain a license vary, but most require identification of where the proposed activities will take place and who will serve as representatives for the company. In addition, technical documents for cultivation, manufacturing, security, research and export plans could be required depending on the license and modality that's applied for.

The relevant ministries are supposed to issue the licenses within 30 days, provided all requirements are fulfilled. The term can be longer if the ministries ask for more information or to make observations. Cultivation applicants should expect at least one inspection visit, during which regulators will verify that no illegal crops exist at the location, among other things.

Manufacturers of cannabis derivatives may source flower from their own crops—if they have the appropriate cultivation licenses—or buy them from other legal cultivators. At least 10% of raw material must be sourced from small- or medium-sized growers. These are cultivators with up to 0.5 hectares (1.2 acres) of area dedicated to growing cannabis.

2. Regulation in Latam - COLOMBIA



COLOMBIA

EXPORTS HIGHLIGHTS

Information about total exports is not publicly available. But we were able to confirm some activity through publicly available company disclosures or communications with company representatives.

- Pharmacielo's latest financial results show that the company generated almost \$1 million in export revenue as of March 30, 2020. The majority corresponded to an export to Switzerland of a few hundred kilograms of CBD isolate; the rest corresponded to exports of a few hundred kilograms of CBD isolate to the United States.
- Clever Leaves exports, including both for scientific purposes and for commercial medical purposes, were shipped to: Australia, Brazil, Canada, Chile, Germany, Poland, the United Kingdom, the United States and one country in the Middle East. The company has not revealed exactly how much revenue it made from those shipments.
- Avicanna, through its subsidiary Santa Marta Golden Hemp, exported hemp seeds to the United States in June 2020 for a net revenue of almost \$300,000, according to a company news release. The company acknowledged in its financial statement for the period ended March 30, 2020, that it "has not generated significant revenues from its operations and is considered to be in development stage."
- Other companies, including FCM Global, Natuera and NuSierra, also have made shipments to the United States and other countries.

2. Regulation in Latam - ECUADOR



ECUADOR

Toward the end of 2019, Ecuador amended its Comprehensive Organic Criminal Code (COIP) to remove cannabis with up to 1% THC from the controlled substances category, effectively decriminalizing its cultivation.

Article 127 of the COIP also mandated the Ministry of Agriculture regulate the implementation of this change and gave that authority 120 days to issue the rules. The deadline is October 2020.

According to statements from public officials to local media, a system of licenses likely will be established, requiring applicants to prove the legitimacy of the capital.

Once the rules are published, the country will join its neighbors in allowing the application for licenses and production opportunities, although the permits will pertain only to nonpsychoactive cannabis.

Article 48 decriminalized the possession of pharmaceutical products derived from cannabis if prescribed by a doctor, but medical cannabis is still unregulated and unavailable in the country in most cases.

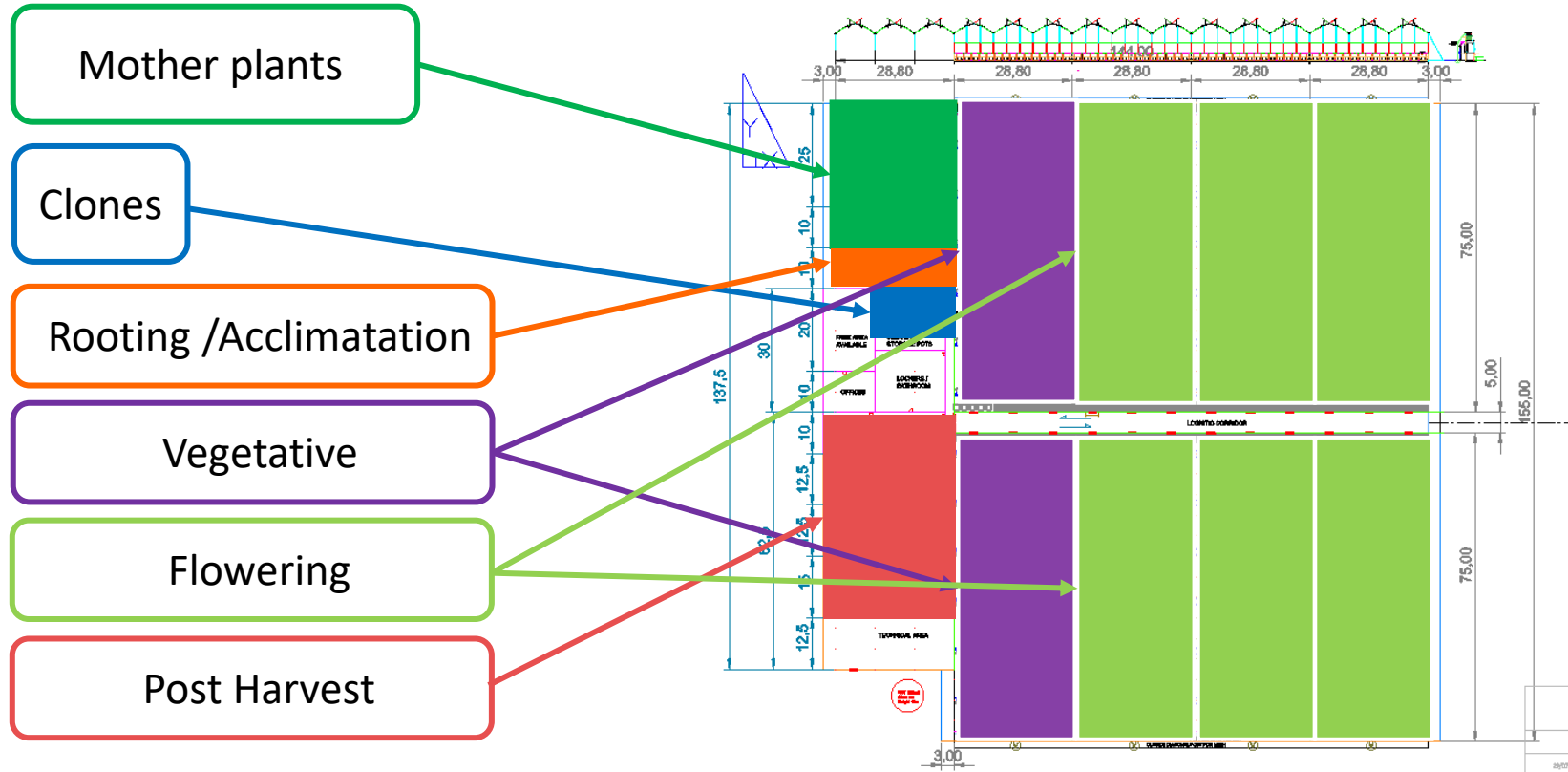
MOST RELEVANT GOVERNMENT AUTHORITIES

- Ministry of Agriculture and Livestock (MAG)

KEY LAWS AND REGULATIONS

- Comprehensive Organic Criminal Code (COIP)
- Upcoming rules from the MAG are expected by October 2020 at the latest

3. Agronomical process and needs



3. Agronomical process and needs

Mother plants



1 plant/m²



75-80 %



350-450 $\mu\text{mol}/\text{m}^2/\text{s}$ – Blue spectrum



T° day : 26-29° T° night : 21-24°



800 to 900 ppm



Dripper – Nitrogen solution

6 months/1 year



3. Agronomical process and needs

Cloning



+100 plant/m²



80-100 %



150-200 $\mu\text{mol}/\text{m}^2/\text{s}$ – blue spectrum



T° day : 21-27°

T° night : 16-21°



400 ppm



Spraying – equilibrated solution

6 months/
1 year

2 weeks



3. Agronomical process and needs

Vegetative - growing



12 plants/m² 1 bloc veg = 2/3 blocs flo



75-80 %



200-300 $\mu\text{mol}/\text{m}^2/\text{s}$ – blue spectrum



T° day : 26-29° T° night : 21-24°



800 to 900 ppm



Dripper – Solution nitrogenous



6 months/
1 year

2 weeks

3 weeks



3. Agronomical process and needs

Flowering



4-6 plant/m²



55-65 %



200-450 $\mu\text{mol}/\text{m}^2/\text{s}$ – red spectrum
12h/12h



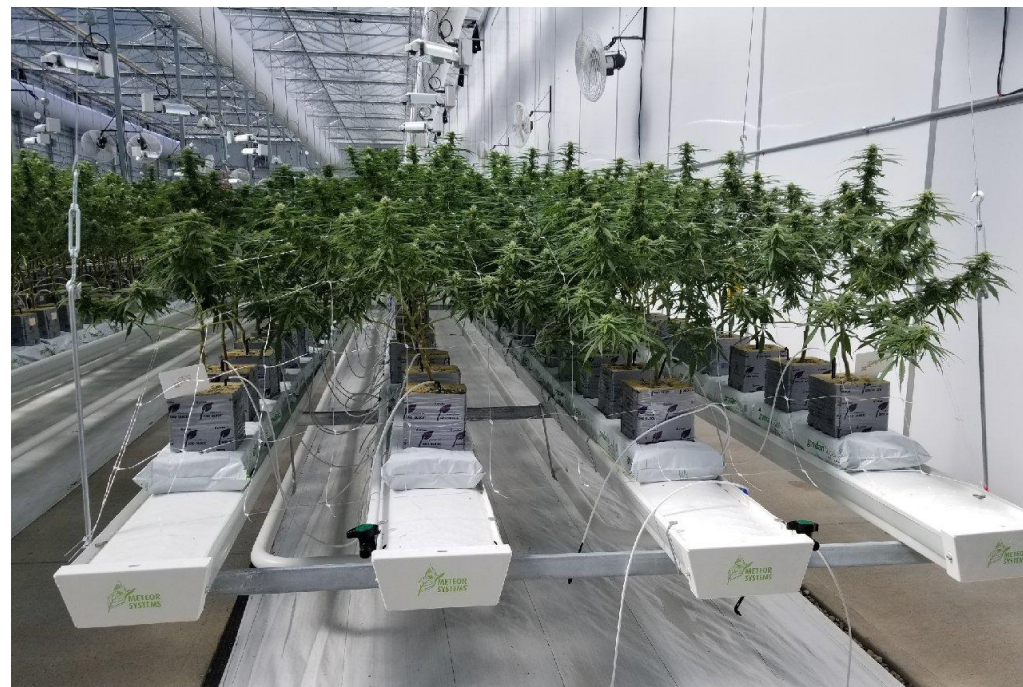
T° day : 26-29° T° night : 21-24°



1000 to 1200 ppm



Dripper – Solution phosphorus



6 months/
1 year

2 weeks

3 weeks

7 weeks



3. Agronomical process and needs

Harvest and post harvest



45-55 % Drying



15,5 – 21° Cleaning



6 months/
1 year

2 weeks





3 weeks

7 weeks

2 weeks



4. Several technical adaptation levels capex

	High-Tech 500 usd/m ²	Mid-Tech 250 usd/m ²	Low-Tech < 100usd/m ²
	LED – variable spectrum	HPS	Photopériodic
	1 ferti for each phase (day storage tank) Recycling for each ferti	1 ferti for flowering + 1 ferti for the rest Recycling	No recycling
	Dessicant salts Cold batteries / Hot batteries CO2 – Open buffer tank	Dry air renewal Grow pipes	Dry air renewal
	On benches /hanged gutters or arches or Swing system	Benches/ gutters on ground	On ground



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