



(A private-label brand of our Organic Colloidal Concentrate.)



OCC Trial Results – Canary Island, Spain

TECHNICAL SHEET

NutraCann®

Introduction

NutraCann® is a compound based on surfactants, with unique physical and chemical capabilities; that promotes the absorption of nutrients from the soil and also increases efficient penetration into the cells of plants for better growth.

Physical properties:

Appearance:	Thick and amber-coloured
Smell:	Slight
Boiling point:	94.6°C
Freezing point:	-3.5°C
Evaporation point:	>96.11°C
Specific gravity:	1.064
Solubility in water:	Perfect
pH:	10.1-10.9

Chemical composition:

Total Nitrogen (N):	≤3.0 %
Total Phosphate (P2O5):	≤0.001 %
Potassium (K):	≤0.0001 %
Sulphur (S):	≤0.1 %
Chlorine (Cl):	≤0.1 %
Boron (B):	≤0.001 %
Iron (Fe):	≤0.0001 %
Sodium (Na):	≤0.001 %
Water:	25.0-30.0 %

DOSAGE:

1ml NutraCann per 1L of water

APPLICATION GUIDE AND INSTRUCTIONS FOR USE:

- * THE PRODUCT IS WATER-SOLUBLE.
- * SHAKE WELL BEFORE USE.
- * **DO NOT EXCEED THE RECOMMENDED DOSAGES.**



HOW TO APPLY:

1. Dilute to 1: 1,000 and spray at intervals of 2 weeks. (Following recommendations of the protocol).
2. Spray the solution directly on the plant leaves (foliar application) until the dripping point. For best results, spray at dawn or late afternoon. Avoid spraying when it rains, as in excessive evaporation conditions.



WHAT IS IT?

NutraCann® is a **nanotechnology**- based product, composed of **biological ingredients**.

Not to be confused with genetic modification technology! (NON-GMO)

It isa colloidal suspension, containing micelles.

It is **NOT** a fertilizer and may be used in conjunction with them.

It acts as a stimulant, and has a **fungistatic and bactericidal action**.

It is 100% biological and eco-friendly (cert ified by the CAAE*).

HOW DOES IT WORK?

Micelles at the nanoparticles level act to 'break apart' the nutrients and help the plant transport them more efficiently and effectively.

NutraCann®is a **stimulator of the transport of nutrients**.

HOW TO USE?

NutraCann® once diluted, applied on the leaves of the plant in the form of spray or fog, until dripping. (foliar application)

It should be applied at sunrise or nightfall to prevent rapid evaporation.

May also be applied by watering the roots / base of plant.

WHAT ARE THE RESULTS?

Healthier plants!

Stimulates **growth** and **vegetative mass**.

It increases the **resistance** to external elements, such as:

- Diseases
- Climate Stress
- Water Stress
- Pests

WHAT TO DO?

Apply **STRICTLY** according to the guidelines provided. Note that it will always depend on weather, crop type, time of application, treatment of fertilizers, fungicides, etc.

As a general rule, apply every 2 weeks, in the periods determined by our engineers.

Do so at **sunrise** or at nightfall (preferably at sunrise).

Dilution of NutraCann and water may be mixed with pesticides and fungicides (consult with us, first).

WHAT NOT TO DO?

Exceed the dosage and the number of applications, as you run the risk of slowing growth.

Change the product container ***.

* Certification service of the Comité Andaluz de Agricultura Ecológica (Andalusian Organic Farming Committee).

** It may be mixed depending on the added product. Consult.

*** Because nanoparticle-sized, the product can pass through the container wall.

NutraCann Test

NutraCann (Phytostimulant) - specific formulation for Cannabis

A natural product - helping plants

NutraCann® is a unique colloidal substance, which facilitates the growth of plants through their special structural characteristics. Specifically formulated for Cannabis crops.

Colloids are a natural substance that can disperse microscopically through another substance. They exist in nature, on the ground, in humans and animals. For example, milk and blood are colloidal substances.

Plants usually carry the nutrients dissolved in water through the xylem and phloem, while humans transport nutrients through the blood system colloids.

Colloids are "stations of attach" and "conveyors" of nutrients, chemicals and minerals, taking them to living cells. The effectiveness of a colloid is determined by its size (surface / volume). Smaller size corresponds to greater effectiveness. Natural colloids have between 1 nm and 1,000 nm.

NutraCann® has more than 80% of its particles with sizes of 0.6 nm.

(NOTE: This trial was done prior to improvements. In 2018, we are at the picometer scale, using a dilution rate of 1:10,000, or .0375 mL per 1 US Gallon of water.)

As a comparison, the water plants typically use as a conveyor, has a molecular size of 1 micron, or 1,000 nanometers.

This feature makes NutraCann® an efficient and effective conveyor of nutrients to be applied to the plant. The result is an increase in growth. At the same time it inhibits and slows the reproduction of pathogens that infect crops.

This allows the immune system of the crop to overcome diseases with minimal or non-existent support of harmful chemicals and pesticides.

The end result will be a reduction in the necessity for chemicals, and therefore, a reversal of the current degeneration trend seen in current crops.

NutraCann® A solution to sustainability and the yield of crops.

On May 1, 2013

The seeds were germinated directly outside. An interesting fact is that since they were exposed outside, the first leaves already had marks of thrips, a very severe pestilence, from the first day. Additionally, the weather was not very good.

On May 16, 2013

Seedlings planted in soil. They were rather small and there was a risk that some animals would eat them. Plants were just beginning to show a third pair of leaves which were not very large (and were full of thrips!), but it was necessary to plant them in the soil, in order for them to survive, as they would not if they remained in the planting pots.

When planted in soil, they were treated for the first time with NutraCann.

On May 23, 2013

The next week showed impressive growth. We moved them temporarily to a small greenhouse, but had to remove them almost immediately as they were quickly outgrowing the space.

On May 30, 2013

Second spraying two weeks from the first treatment. Plants continued with an accelerated growth.

On June 8, 2013

Within just one month of life the plants have leaves as well!
(See next page)

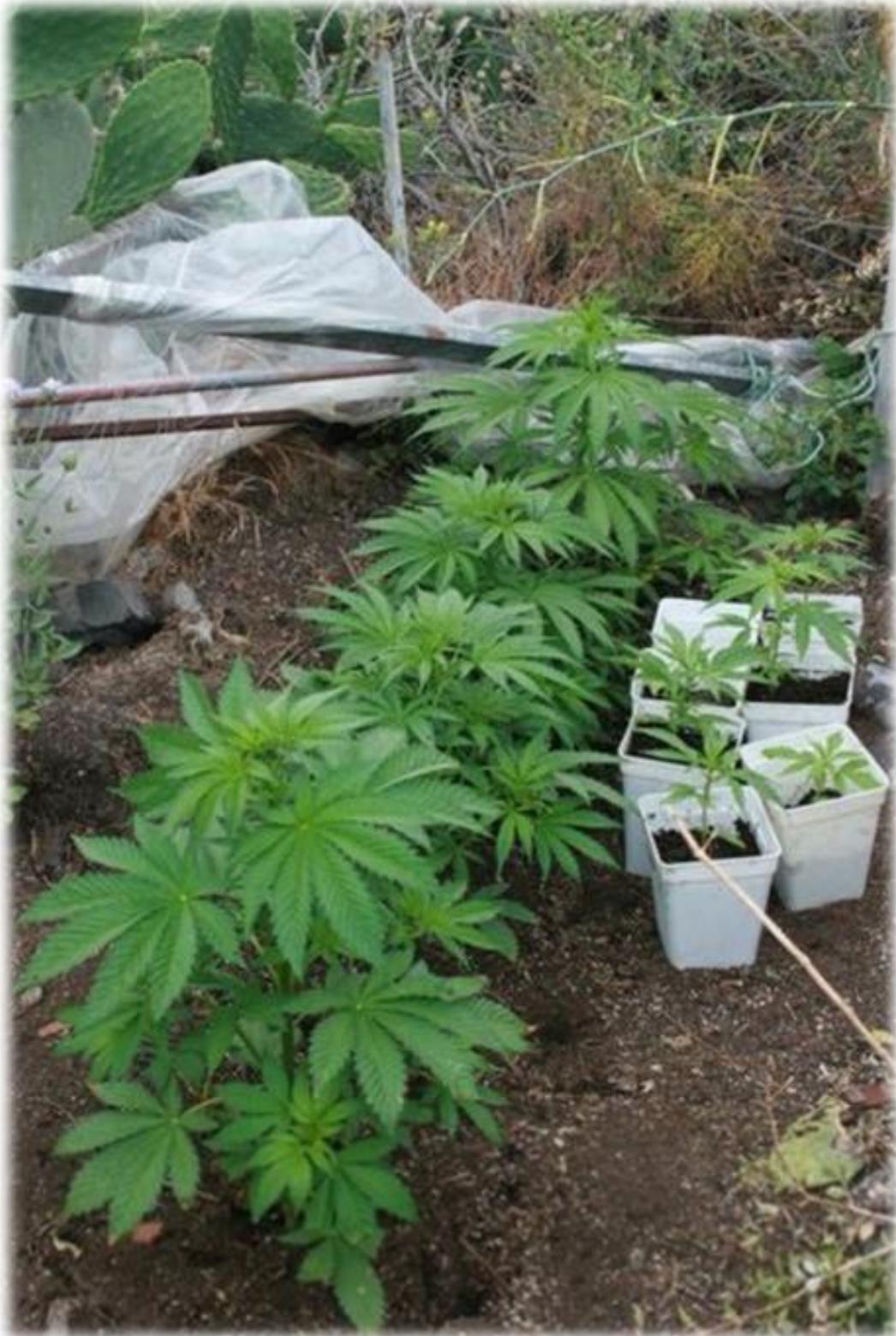


Leaf of Wild Rose strain



Leaf of Pakistani Chitral Kush strain

Here are the plants (closest to the farthest): the first is a Dinachem, the second a Sensi Seeds Northern Lights, then a Pakistan Chitral Kush and at the end a Wild Rose



Here we see the separation between the plants. The Dinachem and the Northern Lights were almost touching!



Dinachem and Northern Lights.

And here, Northern Lights, Pakistan Chitral Kush and Wild Rose that were touching!



Northern Lights, Pakistan Chitral Kush and Wild Rose.

On June 11, 2013

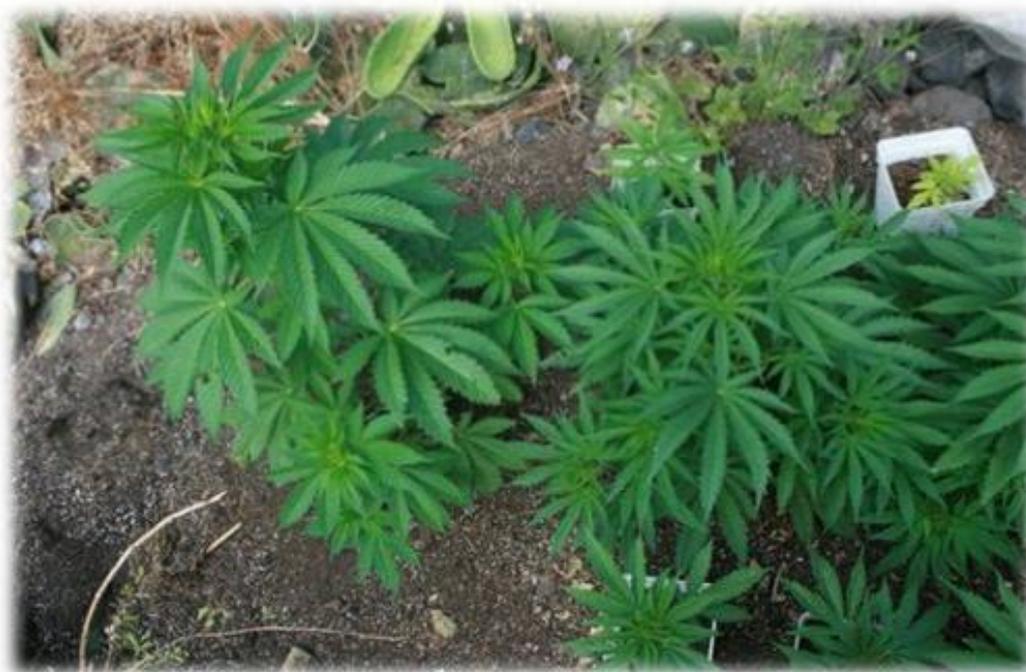
Observed the plants out of curiosity and the Dinachem and the Northern Lights were already touching!

On June 15, 2013

Third spray treatment of NutraCann. The plants now looked like this:

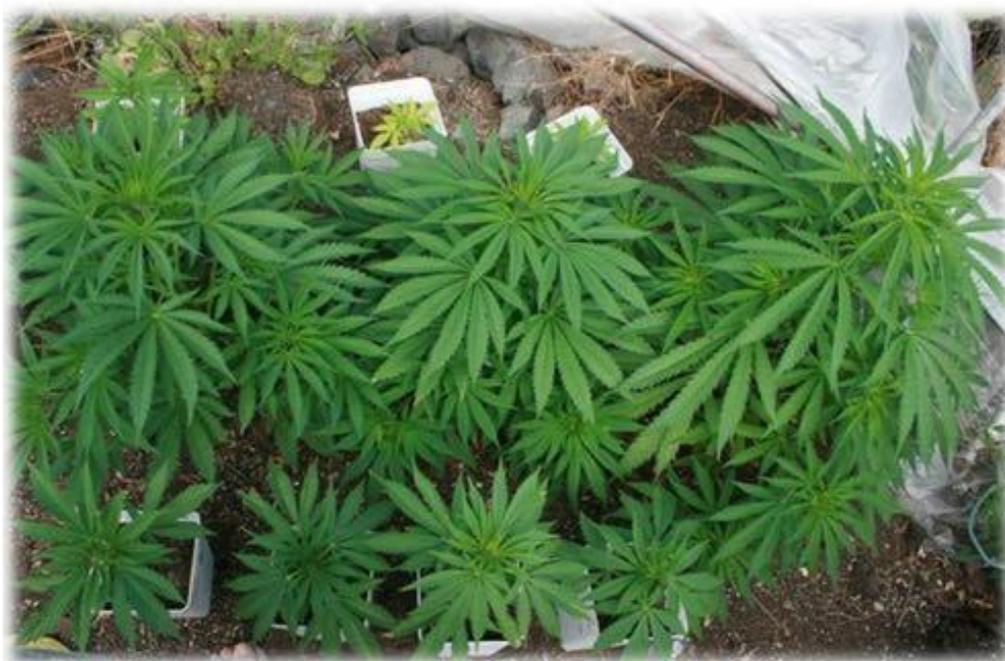


Estimated growth of 15 to 20 cm. The increase in width is most noticeable between the Dinachem and the NL, because they touch:



Dinachem and Northern Lights

Other strains already tight between them:



Northern Lights, Pakistani Chitral Kush and Wild Rose

Except for PCK (shorter, with very wide and hard trunk), strains are tied up and now look like this:



Since they are in soil, fertilizer was not re-applied. The soil initially received a sack of humus, some guano and also a very-old manure that works very well. With the bad weather, we believe this extraordinary growth is mostly due to the phytostimulant NutraCann.

On June 22, 2013

Growth rate is still spectacular! Plants were already tied up and laid down. More is required, and also tying/folding the branches, which are now higher. The Chitral Pakistan Kush also requires tying up after more than one month of growth.



On June 29, 2013



Hard to notice because we've continued bending them and the height is more-or-less equal, but they have grown wide and the surface area is already almost completely occupied! Watering them is now tricky, because the prickly pear cactuses did not leave much room.

Fourth spray of NutraCann. Added humus, earthworm and bat guano to the soil, so as not to lose nutrients, as well as Bacilus because there were too many leaves with small bites.

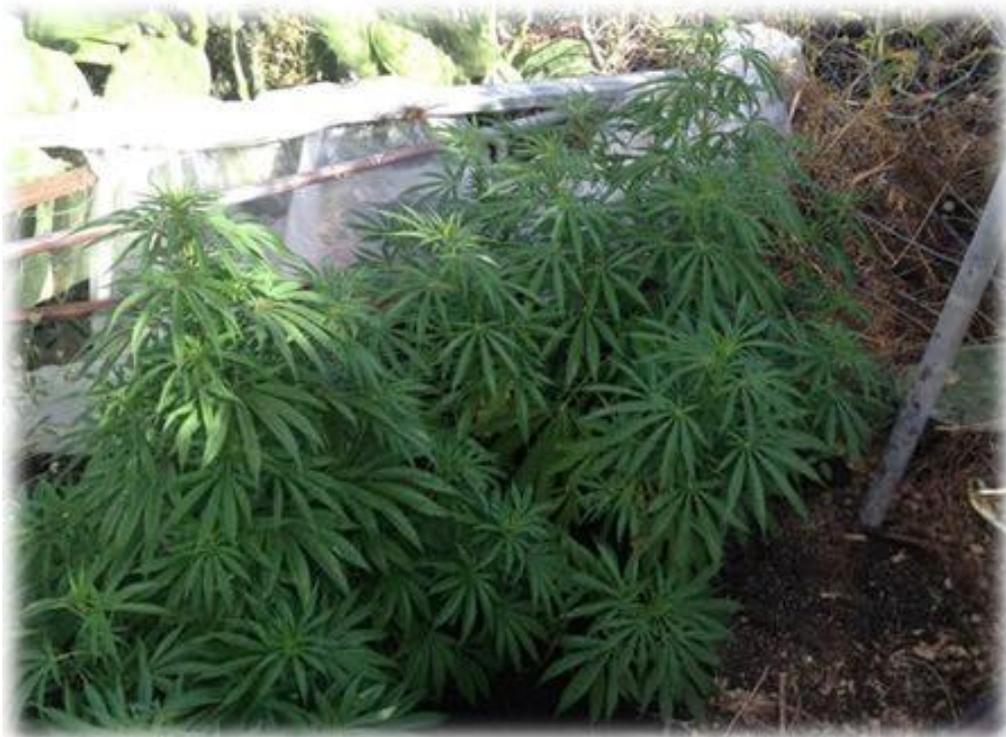
Now it's hot and sunny, and we will not ice well the extra growth.

On July 6, 2013

The plants looked like this:



Side-by-side images of the Pakistan Chitral Kush (left) and the Wild Rose on the right, showing amazing growth!



(BELOW) On the far right (cut) is the Pakistan Chitral Kush, which is the only one that wasn't bent. Next to it is the Northern Lights (thinner leaves). Far left with wider leaves is the Dinachem, the branch that was the lowest for the lying of the tip, is the highest now! All of that is the Dinachem!



On July 13, 2013

Fifth spray application of NutraCann. The Pakistan Chitral Kush height is 1.02 m and is beginning to bloom, ahead of schedule!

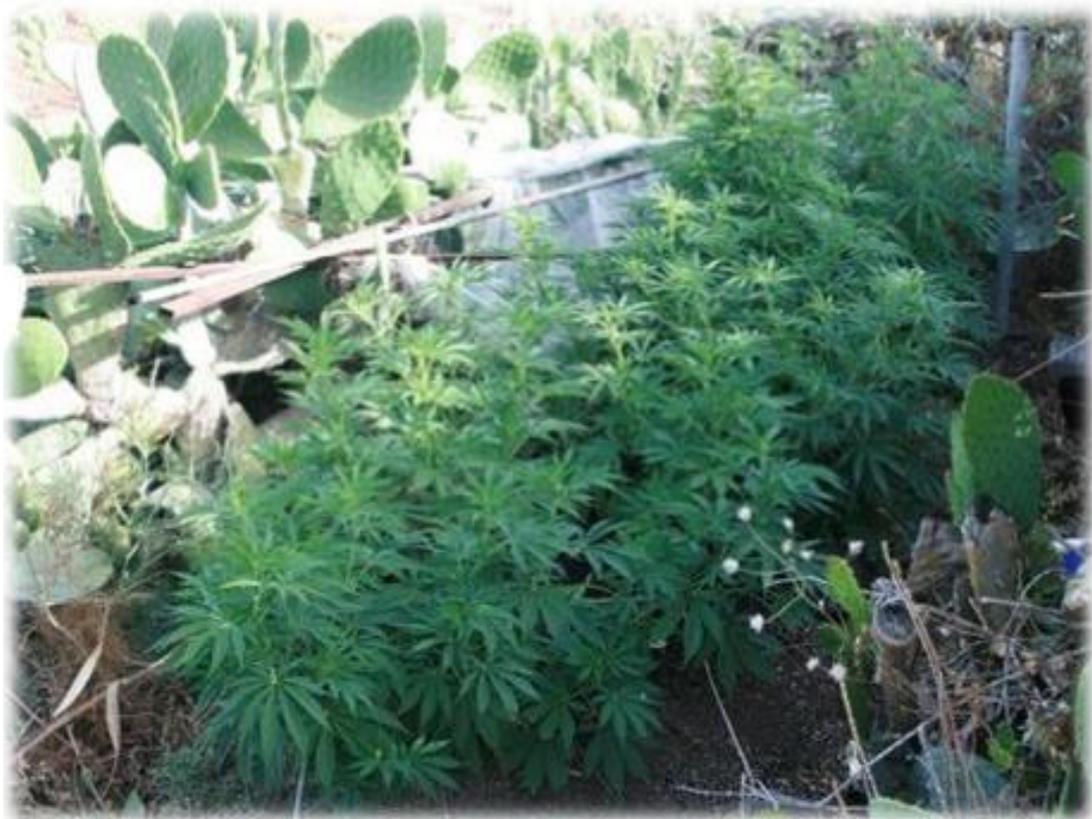


(NEXT PAGE) In addition to this Pakistan Chitral Kush plant, the rest of them are already tied in several places to keep them bent. The Wild Rose is still moored, has branches of the same height as the Pakistan Chitral Kush, AND occupies more than the rest of the plants, which together, fit in a closet of 1m²! (Due to the terrain, it is hard to get a good picture of its size, as it is further away than the other strains.)



Pakistan Chitral Kush (L) and Wild Rose. (R)

(BELOW) Dinachem (L) and Northern Lights (R), both tied for the head and to maintain height.



The distance from the head of the Wild Rose to the head of the Dinachem is 3.20m, and from there to Northern Lights, another 1.20m. This year's growth has exceeded the dimensions of the small location taken up by four PCK plants at this time last year.

On July 20,2013

Already, more plants could not be bent, simply because there was no room to bend them. The Northern Lights that was the smallest last week, was the one which grew more and exceeded the Dinachem in height!



The previous week the Pakistani Citral Kush was well above the Northern Lights, however it grew so much that we almost couldn't see it! Only the tip of the head poking out above!



Continuing to grow at this pace, the Northern Lights and the Wild Rose take only a few more weeks to begin blooming, yielding even more than the Hawaiian Snow that was cultivated at the same site years ago!

On July 27, 2013

Sixth spray application of NutraCann. Over the past two weeks, the Northern Lights has grown to twice the size! (in the photo you can only see the Pakistan Citral Kush top of the head, because the Northern Lights is covering it up!) The Wild Rose was even bigger, and also beginning to cover with branches. Two weeks later, the Pakistan Citral Kush was "buried" by the Northern Lights and the Wild Rose!

This was extremely abnormal! We couldn't even reach the plants! Continued growing to the point that it was very likely that the Northern Lights and the Wild Rose were as large as the Hawaiian Snow that was cultivated years ago at this location.

The Dinachem is practically the only plant you can see in this picture. It was already starting to bloom! Behind is the Northern Lights, which was larger, and also beginning to bloom. Then the Pakistan Chitral Kush that you can see ~ 5cm of its head, which is noticeable because it has already begun to bloom. In the background is the Wild Rose that is almost indistinguishable, with its many heads.



On August 3, 2013

Growth and flowering continue. From this date until the end of August, no photos were taken, because you couldn't see anything, as the plants were enormous!

On August 10, 2013

Seventh spray application of NutraCann.

On August 17, 2013

Growth and blooming continues.

On August 26, 2013

First cutting of the PCK. Thought we were in trouble with Botrytis, as it can happen with very fat buds, but since it had not rained, it was only by the fat part of the central head. Before cutting, it looked like this:



Here we see the Pakistani Chitral Kush between the Northern Lights and the Wild Rose. It's almost hidden because it was smaller, although initially, was one of the two largest:



Look closely and you'll notice that the plant was somewhat overripe, allowing a little botrytis to enter. It was a few days before it was noticed and cut:



On August 29, 2013

Concerned that the Dinachem would get surpassed, we cut it as well. This is one of its many heads:



In the above photo they are all together. Below you can see them already cut:



On September 7, 2013

The other two strains are cut. They were largest and also most resinous and sweet-smelling. Northern Lights was almost the same size as the Hawaiian Snow that I planted years ago, but in 2 months less time!



Taken without a macro lens, so it's hard to see just how much resin there is on this bud. But take our word for it, it's amazing!



The biggest of all was the "Wild Rose." a monster of a plant, with an abundance of resin, and an odor that's detectable from tens-of-meters away!
Because the plant is bundled up and lying down, you can't see its full size.



This photo does not do the bud justice, because of the amount of resin that it has, that was really super-sweet!



Here we can see the Wild Rose from another point of view:



CONCLUSIONS:

I've been growing successfully at this site for a few years and know that plants normally do **not** grow so well in this location. But this year, thanks to NutriCann, growth has been accelerated. I planted fast-growing indicas that could be cut soon, and I cut them even sooner than expected with the surprising result of ***increased yields of two-to-three times normal!***

The NutriCann left no residue, and neither the odor nor taste of the cannabis was negatively affected.