

Answers to the survey from New Mexico Licensed Non-Profit Producers

Fruit of the Earth Organics

Does your LNPP organization support mandatory testing and labeling for cannabinoid content for your cannabis products? Why or why not?

Yes Fruit of the Earth Organics does support mandatory testing for cannabinoid content for all the obvious reason. I would suggest however that when a producer is using the same exact trim for multiple batches of derived products, that perhaps it is not necessary to run the same tests for every batch, thus allowing us to keep the costs down for patients. Because this medicine isn't covered by insurance, and because we see many patients struggling with the costs of medicine, and because we have endeavored to bring our costs down to the lowest possible to accommodate our patients, I do believe there could be a balance struck here. We grow outdoors, and very large plants, a style different from other producers, so one 13' plant can produce as much as 4-5 pounds. It is an unnecessary expense to require every derived product to have the same tests run over and over again, with these tests being very costly and making it more difficult to bring our prices down where we would like to see them. We do believe there can be a balance struck between safety and cost effectiveness, both of which are important to patients.

Does your LNPP organization support mandatory testing and labeling for moisture content, pesticide residue, molds, and/or other impurities in cannabis products? Why or why not?

As for mandatory testing for moisture content, we believe this is unnecessary and an extra expense that could be bypassed.

We have a very stable curing process, perhaps more than many, in a temperature humidity controlled environment for a precise amount of time, to always ensure the best possible cure. We feel quite confident in our curing process, and again are always striving to keep costs down for the sake of medicine prices.

As for pesticide, we are completely organic, wouldn't even dream of using any pesticide, out of the question, so here again to have to test every batch of everything for pesticides is for us an unnecessary expense. I do understand that there may be others that don't share our commitment to organic, so for that purpose I could see instituting something like the food industry, that does random test sampling, but couldn't possibly test every orange or apple. Since that works in the food industry quite well, insures protection for consumers, while keeping costs reasonable, if anything I would suggest using that method, establishing a random sample(s) per harvest. I would apply this same thinking to molds and impurities, because for those of us that know our plants are healthy and clean, and who are endeavoring to keep our costs down for patients, that would suffice. We have been we are proud to say been able to bring our prices down to some of the lowest in the state, with \$10 grams for many strains, and low income and vet discounts.

Does your LNPP organization support mandatory testing and labeling of finished product? Why or why not?

We do support mandatory testing and labeling of finished products, but for other than potency, again feel that the random testing used in the food industry would be reasonable, ensure safety, and support lower prices and thus availability to low income patients. Even with the potency tests, we are often using that same batch of trim for many runs of derived products, and could

imagine the possibility of more spot testing when the producer knows the same trim is being used batch after batch. Here again, we are growing in a different style, with very big plants of high yield, and getting a good sampling from the batch of trim that comes from that plant, could suffice with certain random testing protocols. Labeling is of course necessary.

I would also add that New Mexico has the highest licensing fees in the entire nation, and we are at the same time THE poorest state, with the greatest number of people below the poverty line. I have stated this many times to the DOH, even more recently with their discussions of upping the plant count, and simultaneously tripling the licensing fees. If you look at California, for example, they are able to grow thousands of plants for approx \$8,000, Colorado medical similar, Arizona is \$1,000, etc. I have gathered the data from every single medical state, and the fees we pay for 150 plants are ludicrous, and seriously handicap our ability to bring prices down for low income patients. As I stated before, we believe it is a balancing act between safety and accessibility. But we are strongly concerned for patient well being, which is why we are so deeply committed to organic. We won't even use butane to make any of our extracts as most all others do, or even Everclear, but only organic alcohol. Everything we use for our products is guaranteed organic, no sugars, no gluten, no GMO's - that is the level of our commitment to the highest quality medicine for our patients.

Sacred Garden

1. Do we support mandatory testing and labeling? Yes. It is important for patients and producers alike to know the product is going to support their health and well being.
2. Do we support testing and labeling for moisture content, pesticide residue, molds, and/or other impurities? Yes. There are some really nasty pesticides that should not be used for anything being ingested or smoked. One of the items the DOH is asking for is testing for heavy metals, which I do not agree with. Heavy metals are not present in the mediums or nutrients that are used in the cannabis industry, so that would be an unnecessary expense as far as I am concerned. I am not really sure the purpose of testing for moisture content. I cannot really say yes or no on this question, because I am not educated enough. It seems to me the risk of high moisture content would be presence of mold, which should be tested for. In California and the Northwest, I know people talk about buying flower that is still "wet", and from a consumer perspective, I would not want to pay for water content--only the medicine provided in the flower. I can see in that instance testing for and having a cap on moisture content in a place with moderate to high humidity. Here we have the opposite problem--trying to keep an appropriate amount of humidity in the product.
3. Do we support mandatory testing and labeling of finished product? Sure. This is actually the only place I see testing/labeling is necessary, because patients aren't touching or using anything but finished products.

As an aside, we have been testing infrequently with Cannlabs in Denver, CO. We tried to test with Page Analytics in Albuquerque, and had a false positive for salmonella, pulled all of that strain off the shelf, only to be told, after it was sent to another lab for verification, that Page had

gotten it wrong. It was odd because salmonella is not something that present in an indoor cultivation center.

I have ordered a testing machine that I should be receiving sometime this month, because I believe so much in testing. I am also a firm believer that NMSU should be doing the testing, as was the intent of the bill as introduced and voted on by our legislature. It makes no sense to me that we have inexperienced labs with new equipment they have to figure out when we have a great agricultural school that has been doing the testing for all types of agriculture for many decades.

MJExpress-O

Does your LNPP organization support mandatory testing and labeling for cannabinoid content for your cannabis products? Why or why not?

Yes, dosing and titration are key to medicine.

Does your LNPP organization support mandatory testing and labeling for moisture content, pesticide residue, molds, and/or other impurities in cannabis products? Why or why not?

Moisture content is a market control thing, pesticide residue; sure, molds; absolutely, heavy metals; not germane to our style of grow

Does your LNPP organization support mandatory testing and labeling of finished product? Why or why not?

Absolutely, again safety and titration

New Mexico Top Organics

Does your LNPP organization support mandatory testing and labeling for cannabinoid content for your cannabis products?

Yes, because this allows the patient to know exactly what the percentages of different cannabinoids are contained in the medicine they are getting.

Does your LNPP organization support mandatory testing and labeling for moisture content, pesticide residue, molds and/or impurities in cannabis products?

Yes, allows patients to feel good about their medicine they are putting in their bodies knowing it has been tested for pesticide residues and the like. Also this testing gives LNPP's the confidence to stand behind the product as having been tested for purity and affording they are offering clean medicine to patients. NM Top Organics is strongly in favor of mandatory testing that is structured properly. One of the most important components will be having many reliable testing laboratories to choose from. This is one of the biggest challenges with testing here in New Mexico. Right now there is 1 state approved testing facility.

Does your LNPP organization support mandatory testing and labeling of finished product?

If this is somehow different from the other testing proposed and benefits the patients and is cost effective, than yes. NM Top Organics only tests finished product.

High Desert Relief

Our sincerest apologies for our delay. I will respond further to your posed questions ASAP.

High Desert Relief emphatically supports testing and accurate, current THC and CBD data on all medicine provided to those who choose this medicine.

Stay tuned please.

Red Barn Growers

You ask good questions but the answers are not as simple as yes and no. We at Red Barn believe that access to safe and affordable medicine is the cornerstone upon which a quality program is built. Having said that I will also say that New Mexico as a state is not prepared for mandatory testing as the current regulations propose.

Regular and routine testing has been a huge benefit to us as producers, we do believe that we have been able to greatly improve quality because of this testing. We have also learned much about the health and safety aspect of knowing and understanding what is in the medicine the we sell to our patients.

Does your LNPP organization support mandatory testing and labeling for cannabinoid content for your cannabis products? Why or why not?

At this point I can not support Mandatory testing.

Why Not? The state does not appear to understand what is important to test for. The state must provide a criteria for testing protocols if they require mandatory testing. How can they do this if they do not even understand the procedure. To be fair I do not know exactly what the state intends to implement. US 2025 seems to be what they are leaning toward and I do think that 2025 is a good starting place, however many producers will struggle to meet these standards. This has the potential to reduce supply and drive up cost further pushing patients to the street for, potentially, less safe and certainly untested product. We do test and label.

Does your LNPP organization support mandatory testing and labeling for moisture content, pesticide residue, molds, and/or other impurities in cannabis products? Why or why not?

Again not a yes or no. Additional testing adds additional cost to the patient. Moisture content: at what part of the process, and what exactly is to be gained. If a producer is selling excessively moist product which has the potential to grow mold or mildew after a patient purchases it it seems that this would be painfully obvious and a consumer would not purchase this type of product thus eliminating the problem by not supporting said producer, no patients no business. Also if the state were to mandate product be sold at an excessively dry percentage patients might not be able to use product as sold, and might need to re-hydrate the product again possibly to

unsafe levels which might encourage mold and mildew. A better solution for this might be a use or freeze immediately suggestion on the packaging.

Molds. Yes absolutely. However from my understanding from conversations with our testing technician, most molds are a health problem for respiratory compromised patients only. I could be wrong about that but I do not believe all spores are harmful. So yes test for the bad ones.

Pesticide residue. What are you really asking? any product, Synthetic or natural; harmful of benign, that eliminates or repels any type of pest is a pesticide. Not all are harmful.

Other impurities. Again what are you really asking? This part of the question is so vague that I can not say that I support it. I think I understand where you are going but way to broad to support as stated.

Does your LNPP organization support mandatory testing and labeling of finished product? Why or why not?

Again what specifically are you asking? Cannabis Derived Products (CDP) like finished chocolates and other edibles? If that is the question then yes absolutely. You can not produce a safe and effective product without testing for potency at the least.

New MexiCann

I just scheduled the New MexiCann weekly Newsletter which contained my response to your inquiry - along with a link to your original email. I do not know if you receive our Newsletter, so I am pasting the full testing response below - just in case.

Patients Call for Testing:

About a week ago Sarah Dolk, a member of the New Mexico Medical Cannabis Patients Alliance, sent an email letter to all Licensed NonProfit Producers on behalf of Patients. The letter asked for each LNPP's positions on testing Cannabis products for quantification and Microbiological health and safety.

I have written a fairly detailed response in answer to her questions - it is not so simple. My hope is that Sarah will make the responses that she receives public so that we may all get a better handle on LNPP perspectives on mandatory testing.

1. "Does your LNPP organization support mandatory testing and labeling for cannabinoid content for your cannabis products? Why or why not?"

New MexiCann supports Mandatory Testing and Labeling for Cannabinoid content for all Cannabis Products. BUT for these test results to be meaningful, we need to have reference standards that all labs in New Mexico must adhere to. These standards need to be established by the NM Dept. of Health Scientific Laboratory Division (SLD). Without common reference standards, no two labs will produce the same test results from the same sample.

In addition, we need standardized sampling protocols that all LNPPs must adhere to in order for the quantification to be meaningful. The top bud of the top cola might test out at 25% THC, while a lower bud on the same cola might test out at 20% THC, while a good bud from another side of the plant might test out at 16% THC. This is particularly true for plants grown indoors

with fixed lights. Outdoors, as the sun moves across the sky and rises and sets, the plant gets somewhat more even lighting. Bottom line, no two buds on any given plant will test the same. Accurate sampling creates a meaningful average for potency. And that is all it is, an average. What a Patient gets in their bag may be more potent but it may also be less.

More important than percentages for potency, is the ratio of each Cannabinoid. Is the THC to CBD ration 20:1 (little CBD affect with lots of THC affect) or 1:1 (lots of CBD affect with an equal amount of THC affect) or 1:1:20 (little if any THC affect but lots of CBD affect). In the first case, you get very high or stoned, the second you get somewhat high or stoned and in the third there is little if any psychoactivity. In all three, lots of medicinal affect is being received, but widely different.

Ideally, we would like to see a full profile of at least 15 Cannabinoids and 15 Terpenes listed in mgs per serving and in decreasing order. With such labeling, we would each be able to slowly establish what compounds work for us and in what ratios.

In addition to this complete quantification, it is critical that all ingested products (edibles, tinctures, etc.) are labeled accurately for serving size and THC per serving. When Cannabis is inhaled (smoked) it is very simple to titrate and over in-taking is very rare. We take a hit and almost immediately feel the effect. We then take another if needed. We continue until we can say, "I'm good." As the effects dwindle, we can intake again and again feel the effect.

This is not the case for ingestion. It can take 45 minutes to 2 hours before we can feel the effect. If we have ingested too much, it is too late. If we have ingested too little, even immediately ingesting more will not give us relief for another long time. With accurately labeled product, we can establish our own personal dosage needs. That may be 10 mgs of THC (or CBD) or 100 mgs. Once we have our personal dosing number, we can apply this to any accurately labeled ingestible product and come very close to meaningful titration and effect.

2. Does your LNPP organization support mandatory testing and labeling for moisture content, pesticide residue, molds, and/or other impurities in cannabis products? Why or why not?

New MexiCann supports mandatory testing and labeling for some of these but not all and not in all cases.

MOISTURE CONTENT: There is no need to test moisture content. Moisture content is continually changing as the flowers continue to desiccate as time passes. They also pick up moisture in controlled environment storage. Testing for moisture content after cure only tells us the moisture content at that moment. It tells us nothing of the content when packaged or when the package is finally opened. That number could be put on the label. But labeling for a moisture content established at an earlier time is meaningless with no accuracy what-so-ever.

If we could simply test for moisture content at the time of sale, the consumer would have an accurate picture at least at the moment of purchase. Unfortunately, no simple machine exists to test this. To my knowledge, a Cannabis labs testing for moisture content weigh a bud prior to testing, completely dry the bud to a crisp, weigh the bud again, and then calculate the moisture

loss in the sample and create a percentage by weight. Bottom line, when you test a bud for moisture, you lose it in the process.

PESTICIDE RESIDUE: There is no reason to test for pesticide residue. If there were, it would be required by the US FDA for all food products. Standards and regulations are established that permit certain harmless pesticides on food products and forbid others. In a regulated industry, producers are required to adhere to these regulations. Testing is done rarely - either when an adverse event has occurred whose cause needs to be established or as a part of the Regulatory Agency's random compliance inspections. Producers who have violated the regulations and used non-approved pesticides are assessed substantial fines. If anyone was harmed through the producer's negligence, the producer faces possible criminal and civil actions as well.

MOLD: New MexiCann does support Mandatory testing for Mold. This testing needs to be done as batch testing on randomly sampled buds from the top, middle and bottom of each curing jar in each strains harvest. If the batch fails, UV remediation is then attempted and samples are again taken and re-tested. If this re-test passes, nothing further needs to be done. If the re-test fails again, the buds should not be permitted to be sold. They can, however, be used as extraction material for Ethanol, Butane or CO2 processes.

These extraction methods will destroy the mold, but may leave behind aflotoxins. These aflotoxins can be toxic, especially in the concentrations resulting from extraction. The extracts made from bud which has failed mold testing need to be tested for aflotoxins. If present, the extracted concentrate cannot be used for inhalation (hash oil or wax). However, even if aflotoxins are found to be present, these extracts can be used to create Cannabis Infused Ingestible Products. The digestive process effectively neutralizes the aflotoxins and their ingestion is considered safe.

HEAVY METALS: New MexiCann does not support batch testing for heavy metals. Heavy metals, however, do need to be prohibited by regulation. The source of heavy metals is the soil used for cultivation. Outdoor gardens do need to have their soil tested, but only once before the first time the plot is used. If no heavy metals are present in the soil it is safe to use now and into the future. Indoor gardens need to test soil if it is bulk ground soil brought in from the outside. For purchased soil, all manufacturers provide accurate labeling and the regulatory standards are adhered to easily. As with pesticides, heavy metal batch testing is only needed either when an adverse event occurs whose source needs to be established or as a part of the regulatory agency's random compliance testing. Again, violations would bring fines and in the case of bodily harm, possible civil and criminal proceedings.

3. Does your LNPP organization support mandatory testing and labeling of finished product? Why or why not?

New MexiCann does not support batch Mandatory Testing for ingested finished products, but does support testing associated with cGMP (current Good Manufacturing Process) and accurate labeling. As with any food product, cGMP requires a recipe for all ingredients and processes in each new product. This recipe needs to be followed precisely. The first batch for each new recipe requires testing to insure that the ingredients and contents proportions and ratios have been held through the production process to the final product. Even with accurate calculations and

measurements, process can change content in substance, amount and ratio. Once the first batch has been tested, a second and third batch is produced and tested. This process is continued until three consecutive batches have produced the same test results within a small acceptable margin of variation. This is now considered a stable recipe and cGMP process and testing is no longer needed - other than the exceptions listed above for adverse events and random regulatory compliance. If the recipe (ingredients, process, equipment) changes, the cGMP testing procedure needs to be reestablished until once again three consecutive batches are identical within acceptable limits.

SO, there you have it. Len and New MexiCann's position on testing and labeling. Feel free to contact me if you have any questions or would like more info. We look forward to a time in the very near future when the testing protocols outlined above become a part of the NM Medical Cannabis Program Regulations and a time when we have quality standardized labs in NM that we can rely on.

Cannaceuticals

Does your LNPP organization support mandatory testing and labeling for cannabinoid content for your cannabis products? Why or why not?

Yes, we fully believe in testing. We currently test every plant because we feel it is important for patients to have this information for the best dosing and treatment of the various ailments being treated. Though we understand the importance and agree patients should have this information, we do not feel that this should be mandatory or enforced by the state. We feel, patients that need or desire this information should simply obtain their medicine from the producers that provide the information desired. Naturally, supply and demand would require producers to complete this type of testing.

Does your LNPP organization support mandatory testing and labeling for moisture content, pesticide residue, molds, and/or other impurities in cannabis products? Why or why not?

As much as we would love to support these types of tests, the cost to complete each test would spike cost of medicine. These tests are extremely expensive and in turn this cost that producers would incur would have to be passed on to patients. Due to this, we don't feel it should be mandatory. At this time, our organization has protocols should a concern of moisture content, pesticide residue, molds, and/or other impurities be in question before any medicine is made available to patients.

Does your LNPP organization support mandatory testing and labeling of finished product? Why or why not?

We support testing as we explained in question one and agree that the results of these tests should be made available to patients. In accordance with the Lynn and Erin Compassionate Use Act as it is currently written, we fully agree with what is required.

New Mexico Alternative Care

We feel very strongly and have been advocates to the MCP for mandatory testing. NMAC in Farmington is one of the first and few that test every harvest, every strain, every plant, every

time. We do nothing but the full panel test on our flower. What good does 20% THC do if it is covered in mold, fecal matter and chemicals. So we are pushing for mandatory full panel testing, yes. We also feel strongly about the need for proper labeling.

Sandia Botanicals

We do support reasonable mandatory testing.

I will answer your questions when I have a bit more time to address this issue as it deserves.

Glad to see the patient alliance is doing this.

I also welcome anyone to come by for a visit to talk about mandatory testing.

(didn't receive any other info)

Southwest Organic Producers

Your position on testing is so important to us at SWOP that I will respond to you directly.

When I started SWOP my intention was to produce medical cannabis that was safe and effective. Without testing we can't possibly know that patients with compromised immune systems will not be harmed.

We were one of the first producers to test, and remained in the top three of all producers testing. Our combined expenditures exceeded the remaining 20 producers combined. We are advocates of testing, and quality control is a priority of our organization. Our growth has been slower than those organizations that pay lip service to you but list potential potencies derived from previous best results or those listed on the web. Testing is too expensive to their bottom line. To us the patient's welfare comes first. However the current situation of a few laboratories with non-compatible testing equipment for edible products, and sporadic or non-availability of equipment, leads us to consider our own organic testing lab with protocols emplaced. We will use Flash Chromatography as an adjunct to potency testing at NMSU using both Gas and HPLC. NMSU is now our reference laboratory. We will conduct all three potency tests to verify that our protocols on our equipment are repeatable and applicable. We will continue to run all three to develop the best testing for each product line. A scheduled calibration program for equipment will be conducted with a double blind standard and operations with reference samples. This insures the accuracy of the equipment and applicability of our protocols and procedures.

Does your LNPP organization support mandatory testing and labeling for cannabinoid content for your cannabis products? Why or why not?

Yes we do. Why? We are one of only three producers in this state that perform 100% testing on all product lines.

Does your LNPP organization support mandatory testing and labeling for moisture content, pesticide residue, molds, and/or other impurities in cannabis products? Why or why not?

We don't test for pesticides because we are organic producers and reject any treatment that is not OMRI listed. If an organic farm is in the vicinity of a non-organic farm that sprays pesticides the organic process is considered compromised. In our case we are growing in isolation with Merv 8 filtration on our grow facility with UV treated make up air. Our water is cleaned to the atomic

level using a water treatment plant we purchased from a water distribution company. As we don't grow out doors our growing media meets OMRI and USDA Organic standards and is pesticide free. The bottom line is if it's not in the environment it's not in the plant. We test for fungal and microbial levels under pharmacopeia USP 2023 standards. We inspect all products for impurities.

The analysis of THC levels is done by weight. To achieve bragging rights for high percentages some producers over dry their samples. The drier the product, the higher the THC concentration ratios per weight of product is achieved. For this reason the results are atypical and non-representative of the product you actually buy. We long cure our product to achieve safe microbial stability with moisture levels of 20% or less. Our tested product typically ranges at 14.8% or less and represents the actual range that your can expect from us. Tested moisture levels are available upon request.

Does your LNPP organization support mandatory testing and labeling of finished product? Why or why not?

Potency testing is so important to effectively dose our edible products. The potency levels are listed on the label in the same manner as pharmaceutical drugs in milligrams of THC per gram of weight. The amounts listed are derived after the candy or confections are processed. Tinctures are also tested in this manner using mg/ml. Because THC is only one of the many cannabinoids, we collect all of the cannabinoids identified for that strain and batch #. We can't effectively list these on the label for lack of space. We will make these test results available upon request. We include CBD values on the Cannatonic and other higher CBD strains. We intend to proceed with organic in house testing to better our organization and insure that we deliver the best product possible.

Compassionate Distributors

This is a complicated issue that cannot be resolved by assuming a producer does not support testing because the producer did not respond to your letter. I think that assumption would be incorrect. We agree that there is a lack of testing facilities in NM, which further complicates this issue. Until there are available labs that are proven to be reliable and affordable, we cannot take a position on your questions. So you know, we have tested our products in the past. Our edibles are currently tested, although with the shutdown of Jeremy Page's operation, we are uncertain as to this status. We also human test -- nothing goes out that has not been sampled by our employees. This helps us understand exactly how the product affects them so we can educate our patients as to potential effects. Thank you.

We received verbal replies of support for Mandatory Testing from Natural Rx and Grassroots Rx.

No replies from: C.G.Corrigan, Healthy Education Society, MedZen, Minerva Canna Group, R. Greenleaf, The Verdes Foundation, Mother Earth Herbs, Budding Hope, G&G Genetics