

**Holistic Healing • Natural Medicine Healthy Water • Counseling • Classes** 

8455 W. Hwy 24, Cascade, CO 80809 www.eaglesnestwellnesscenter.com Office: 719-687-2978

## Marijuana as Medicine - Part 1

By Lono Ho'ala – Biochemist, Author, and expert at Natural Medicine. Lono is the Chief Executive Officer of Eagle's Nest Wellness Center in Cascade CO, a recognized leader in the use of medical-grade marijuana for serious disease.

© 2015 Eagle's Nest Wellness Center, LLC. All Rights Reserved.

# BEWARE OF PGR'S AND TOXIC PESTICIDES COMMONLY USED ON MARIJUANA

## Please read this carefully. It may keep you healthy or even save your life!

If you use marijuana – whether as a recreational substance and especially if you use it as a medicine – what is far more important than the strain is how the plants are grown.

Many growers, even if they advertise their product as "organic," use nutrients that contain compounds known as plant growth regulators (PGR's) to compete on price or use toxic pesticides to save crops from diseases and pests.

## WHAT ARE PGR'S

PGR's are synthetic chemical substances that profoundly influence the growth and differentiation of plant cells, tissues and organs. PGR's function as chemical messengers for intercellular communication.

In today's cannabis market, competition is extreme. Even a casual glance at local newspapers that carry ads for marijuana dispensaries will reveal that the competition is all about price. Marijuana that used to cost \$400 an ounce now sells for less than \$100. This makes the use of PGR's to dramatically shorten growing times and increase bud weight compelling.

Unfortunately, as with many things, when consumers buy into this game, the consumer gets what they pay for. They may get a gram for \$4.00 but what they don't realize is that they may be setting themselves up to develop serious health issues including cancer, neurological problems, liver problems and much more.

Product advertised as "organic" and offered at \$4 - \$6 a gram should be a big danger sign for responsible consumers. The cost of growing truly organic marijuana without PGR'S and toxic pesticides makes such pricing impossible.

Contrary to what the manufacturers of PGR's and the many growers who use them might claim, PGR's are not the same as natural plant hormones. They are synthetic chemicals specifically designed to moderate plant behavior, and many are extremely toxic.

Remember that marijuana is a cash crop. Each plant in can be worth up between \$500 and \$1,000 dollars. Because growers are highly motivated by profit, it becomes easy to justify the use of products that dramatically shorten flowering time, increase bud weight, or both.

Due to their extremely toxic nature, most PGR's have been banned for use in food crops since the 1970's but are still widely used in the cultivation of marijuana today. Because marijuana is considered an illegal drug at the level of the federal government, the FDA and other government agencies refuse to either regulate PDR's or inform the public about their dangers.

Because marijuana cultivation has become such a huge business, manufacturers take advantage of this situation. Formulators are not always required to list every ingredient in their products; claiming that their recipes are "trade secrets." When marijuana is grown with products that make this claim, the ethical grower and any consumer should see it as a big red flag.

The California Department of Food and Agriculture (CDFA) tested several products, and the findings have since been made public, thanks, in part to the Freedom of Information Act.

Bushmaster, Top Load, Flower Dragon, PhosphoLoad, and Gravity, are just a few of the products that are popular among growers. This is not an exclusive list. There are many others.

Not only are these products toxic, but also how they are marketed is extremely deceptive, often leading well-meaning but uninformed growers to think that the products are actually "organic" or at least "all-natural."

Consider the sales pitch used by Emerald Triangle's marketing department to sell their product called "Gravity":

"Our uniquely prepared kelp extract and phosphorus based additive will harden your flowers from the top to the bottom. A little goes a long way. Use once or twice about 3 weeks before the end of a plant's cycle. Adds size and weight to flowering plants."

Thanks to the CDFA report, we now know that Gravity does, in fact, contain a PGR called Paclobutrazol (PACLO.) In plants, this chemical retards internode length and reduces maturation time significantly. When used on marijuana, this results in tighter flowering tops that can be harvested much earlier.

This has made Gravity an attractive fertilizer additive to many unsuspecting or downright unscrupulous growers.

Unfortunately, tests on rats demonstrate that the product may cause serious liver damage and could be highly carcinogenic. Paclobutrazol is only one of many toxic PGRs used to cultivate marijuana.

Other alleged PGR tainted products include: Superbud, Purple Maxx, Boonta Bud, Rox, Rock Juice, Cyco Flower, Yield Masta, and Mr No. There are many others. Because nutrient manufacturers jealously protect their "trade secrets," there is no way to know which brands do this for sure.

So how can you become an informed consumer?
Unfortunately, it isn't easy. Many nutrient manufacturing companies that growers trust and give their money to – including General Hydroponics, Dutch Master, Humboldt Nutrients, Emerald Triangle, Humboldt County's Own, Hit Manufacturing, and many others, have included PGRs in their products, and have thereby endangered the health of consumers of marijuana!

Labels for these products rarely if ever mention PACLO or any other toxic PGRs.

They only talk about kelp, humic acids, amino acids, phosphorus, and potassium. All of these products sound natural and benign. There is absolutely no mention of anything that's dangerous. That is no accident.

Because manufacturers of hydroponic nutrient solutions aren't required to list all of the ingredients in their products reading labels isn't very helpful. Growers pick up a bottle of something because of its reputation. Sellers say: "Trust me, I don't know why it works – it just works."

When ingested, many of these products are neurotoxic and carcinogenic to human beings. Some of these PGR's break down into other metabolites that are even more toxic than the original substance. Here is an interesting link to a video posted on youtube that addresses the issue.

https://www.youtube.com/watch?v=\_J8q2vDGz5k Here are only two examples of toxic PGRs.

#### **DAMINOZIDE**

IUPAC name: N-(Dimethylamino)succinamic acid

Molecular formula: C6N2H12O3

Commercial trade names: Alar, Kylar, B-NINE, DMASA, SADH, B 995

Consumer Products: Flower Dragon, Top Load, Phosphoload Daminozide has been shown to promote early fruit set, blossom set, and enhance color in apples, tomatoes, grapes, stone fruit and ornamental plants.

Daminozide was approved for sale in the USA in 1963 and was popularized by apple farmers until 1989 when it was nearly banned by the FDA as a suspected carcinogen. At that time it's manufacturer Uniroyal Chemical Company withdrew it from the market for use on food crops but continued to offer it for use on ornamental plants. That same year the television program 60 minutes featured a segment outlining concerns of the use of Daminozide and cancer causing apples. This created a terrified public that refused to buy apples resulting in a law suit filed by apple producers against CBS, NRDC and Fenton Communications for 100 million dollars in damages.

The Environmental Protection Agency (EPA) currently lists Daminozide as a human carcinogen. At present, further testing is required to clarify how dangerous it really is.

#### **PACLOBUTRAZOL**

IUPAC name: (2S,3S)-1-(4-chlorophenyl)-4,4-dimethyl-2-(1,2,4-triazol-1-yl)pentan-3-ol

Molecular Formula: C15H2oClN3O

Commercial Trade names: Cultar, Astar, Bonzi, Clipper, Holdfost, Klipper, MET, Parlay, PP333

Consumer products: Bushmaster, Gravity, Phosphoload, Flower Dragon

Paclobutrazol retards plant growth by inhibiting the plants natural production of natural growth hormones called Gibberellins. This results in shorter internode length, greater root development, early fruit set, enhanced fruit set, and a reduction in frost sensitivity. Paclobutrazol is also marketed as a fungicide.

At this time it appears that the manufacture of Paclobutrazol has not been banned outright, but is not permitted to be used in food in the USA.

### **PESTICIDES**

Besides PGR'S, there is another class of toxic chemicals used in the production of marijuana, and that is pesticides.

Remember, the financial repercussions of pests like spider mites or diseases like powdery mildew can be severe to a marijuana grower who depends on the success of their crop to sustain cash flow.

Imagine a company that has a 50,000 SF grow facing a powdery mildew outbreak. That could easily cost that grower over \$1,000,000. What about the small grower who grows out of his home as a care-taker for a small number of patients? For many, the temptation to use these products is just too much to resist.

How toxic can they be? One typical product is Eagle 20 Pesticide. Here is what they say on the label:

"Inhalation may cause central nervous system effects. On animals effects have been reported in the liver, testes, adrenal gland, kidney, and thyroid. Contains chemicals known to cause cancer. Eagle 20 is considered by the EPA to pose both an immediate and a delayed health hazard."

Not exactly harmless, is it? Here is the MSDS to see for yourself:

http://www.golf-venture.com/msds/EAGLE633.pdf

The fact that Eagle 20 is a known endocrine disruptor is the most concerning. Endocrine disruptors are chemicals that interfere with endocrine (the hormone system) in animals and humans even at extremely low doses. These disruptions can cause cancerous tumors, birth defects, and developmental disorders such as learning disabilities, severe attention deficit disorder, cognitive and brain development problems, deformations of the body, sexual development problems, feminizing of males, and masculine effects on females.

Worse yet, if a developing fetus is exposed to and affected by endocrine disruptors, it can take decades for adverse effects to manifest. Even more disturbing, it appears that the effects of endocrine disruptors are passed from generation to generation through epigenetic modification of our DNA. Some research indicates that the effects are transgenerational, meaning that the hazardous health effects can be passed on for multiple generations.

So not only can exposure to products like Eagle 20 cause hazardous health effects in you, but they can also cause hazardous health effects in your children, and possibly even you grand-children, decades after you were initially exposed.

So what should the responsible consumer of these products do?

- 1. Start by realizing that cheap marijuana is no bargain no matter how compelling the ads, and no matter what the grower may say. Good, organic or all-natural top quality bud should cost at least \$8 if not \$10 or more a gram. That is because grown naturally, marijuana takes longer to grow, will require more nutrients and more expensive nutrients, and will not produce the weight of product grown with PGRs.
- 2. Also realize that while lab reports in Colorado test for potency and may identify products contaminated with pesticides, metals, and solvents, they typically do not report the presence of PGRs. This means that just because a product has been tested by a lab, it doesn't mean it is safe from these substances.
- 3. Reputable growers with integrity value transparency. Our patients at Eagle's Nest are always welcome to take a tour of our grow and inspect the nutrients we use at any time. Where you shop should always be willing to do the same. If not steer clear.

### **C**ONCLUSION

While marijuana can be a powerful medicine for many health conditions, if grown using PGRs and toxic pesticides, it can be a tremendous health hazard.

Unscrupulous or uneducated growers pose a major risk to unsuspecting consumers.

Especially if you are a cancer patient or someone suffering from neurological problems, liver or other digestive issues, or chronic viral infections like AIDS, DO NOT TRUST YOUR HEALTH TO CHEAP MARIJUANA that was grown in a way you can't be sure about. It may become a life-threatening mistake.

There are many cannabinoids that are known to be powerful medicines for diseases like cancer, multiple-sclerosis, diabetes, Crohn's disease, arthritis, PTSD, and more. Of these cannabinoids, cannabidiol or CBD is emerging as one of the most important.

It is therefore no surprise that CBD medicines are now starting to proliferate in the market. However, most of these use CBD oil that originates in China. Lab tests reveal that such oil contains high amounts of heavy metals like arsenic, mercury and cadmium. No cancer patient would ever want to take high levels of arsenic. It would be like throwing gasoline onto a fire.

To be effective cannabis must be grown organically without PGRs, prepared without harmful organic solvents, and administered in therapeutic doses.

Eagle's Nest Wellness Center, LLC. is devoted to our patient's well-being. Our purpose is to provide the highest quality cannabis and cannabis products as a medicine to those in need. Not only do we provide products our patients can trust, but we are expert at calculating mixes and dosages for various illnesses.

If you or anyone you know would like to discuss the therapeutic use of cannabis medicines for health issues, please schedule a free appointment with Lono Ho'ala – our resident biochemist and expert at natural medicine and the use of cannabis as a medicine. He will be happy to show you what cannabis can do for you!

Please consider donating to our Compassionate Care Program. Many ill people are in need of high quality marijuana for the treatment of their cancers and other serious illnesses but they can't afford the expense. Your donations go to a 501(c)3 Foundation and are completely tax deductible. 100% of the proceeds go to benefit the patient.

Another way you can help is to consider an investment in a program that will lease a medical hemp and marijuana grow and processing facility to Eagle's Nest Wellness Center, LLC. Accredited investors who can afford a minimum \$25,000 for 5 years will earn 12% per year secured by real estate.

For more information call Lono Ho'ala at 719-687-2978.



Holistic Healing • Natural Medicine Healthy Water • Counseling • Classes

8455 W. Hwy 24, Cascade, CO 80809 www.eaglesnestwellnesscenter.com Office: 719-687-2978