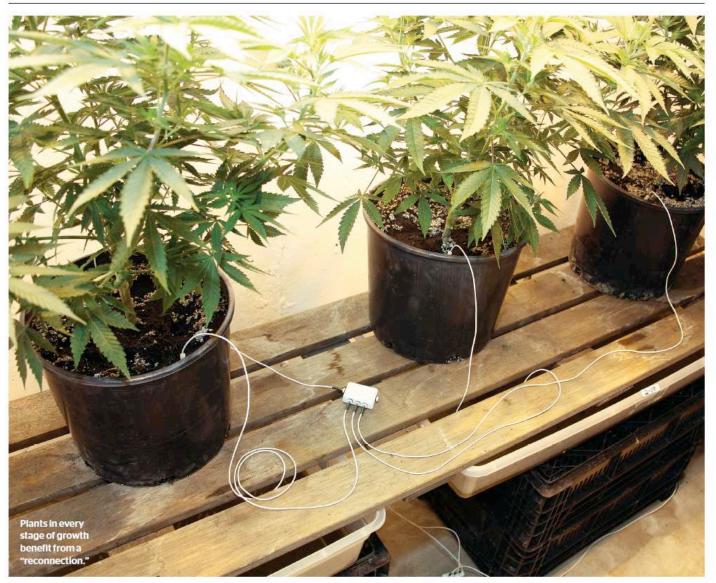
October 2012 High Times 45

ELECTRIFY YOUR PLANTS!

A revolutionary new device uses power to become a natural



46 Electrity Your Plants!





Electrical Earth

Plants have evolved in a state of nature, growing in the ground outdoors. For this reason, growing plants in artificial containers and not connecting them back to the Earth decreases their ability to grow and develop to their maximum potential.

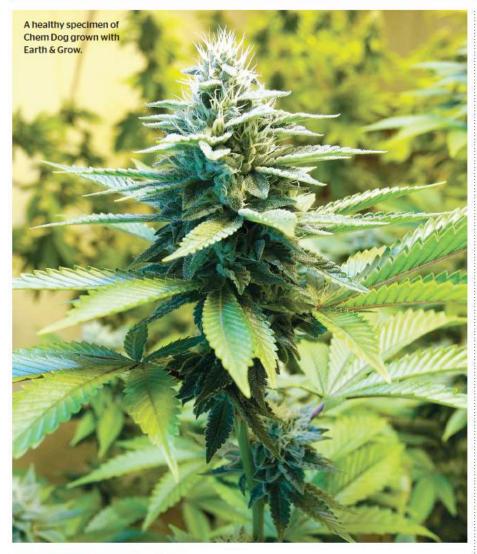
During the past 200 years, the intimate relationship between electricity and life has been well documented. All organisms contain water and minerals, which together form an excellent conductor of electrons. Subtle electrical currents known as *telluric currents* pulsate perpetually at or near the surface of the earth and are easily transferred up, into and through the structures of all living things—as long as they're in direct contact with the Earth.

The Earth itself is an electrical generator, and all of its oceans and landmasses are conductive. The atmosphere above the Earth's surface also conducts electricity due to the presence of positive and negative ions in the air.

It is well established (though not so widely known) that the surface of the Earth possesses a limitless and continuously renewed supply of free electrons as a result of the planet's electrical current, itself the accumulated effect of thousands of daily thunderstorms. These storms feed a continuous current from the ground to the ionosphere. This electrical current spreads across the globe and returns to the Earth as a "fair-weather current" outside the thunderstorm areas. The whole process is referred to as the global electrical circuit, which in turn is responsible for the Earth's electrical field and maintains the unlimited supply of electrons everywhere on its surface.

The natural electromagnetic fields on the Earth affect the atmosphere and environment around our planet. All organisms have attuned their biology to the Earth's direct-current (DC) electricity and natural fields, known as the Schumann resonances.

48 Electrity Your Plants! High Times October 2012



Alternating Current (AC), Free Radicals and Plant Health

Power distribution systems around the world radiate man-made, coherent alternating-current (AC) electricity at the rate of 50 to 60 hertz (Hz). This form of electricity is actually foreign to the biology of every living organism and is being researched as a factor in a variety of stress-related responses in humans (as well as other biological complications).

A wide range of electromagnetic radiation bombards us, with the sources including computers, mobile phones, radio and television broadcasts, WiFi, Bluetooth, high-tension power lines, domestic wiring and various other electrical appliances. Some of these radiation sources can produce large amounts of positive static charges and, in close proximity, can induce disruptive electrical potentials in our bodies as well as in plants. This positive static charge and resulting free-radical overdevelopment can unbalance the trillions of subtle electrical communications both across and between cell membranes, which play a vital role in our overall health.

All organisms naturally produce free radicals to defend against bacteria and viruses. A free radical is an atom or molecule that contains an unpaired electron in its outer shell. This "extra" electron makes the atom or molecule highly reactive and unstable, requiring it to bond with other molecules. Under normal circumstances, free radicals bond to bacteria and viruses, destroying their vigor and accelerating their aging process. If high concentrations of free radicals remain unpaired and reactive, however, they will attack and damage healthy cells.

When potted plants are not connected to the earth, exposure to AC electromagnetic fields at 50 to 60 Hz increase the concentrations of free radicals. High concentrations of free radicals have been shown to damage an organism's cells and DNA. Damaged DNA affects the function of cells when they divide and replicate. Harmful positive ionization from free radicals alters cell function, gene expression, growth, node development, yields and overall plant health.



A REVOLUTION IN INDOOR GROWING

Stephen Doyle and Michael Corsi are the bright guys behind Earth & Grow.

During the winter of 2008, Stephen Doyle looked at his cannabis plants and wondered why they didn't seem to be growing with the same vigor and life force as plants grown outside in the ground. It struck him that his plants were in plastic pots, raised over plastic catch trays and elevated over a tile floor. Essentially, they were "fish out of water."

Doyle had graduated from the University of Rhode Island with a degree in urban horticulture. The primary focus of his studies was organic fertilizer, compost tea, electromagnetism and cannabis. But during his senior year, he embarked on a research project titled "Electromagnetic Radiation and Its Effects on Plant-Insect Communication." While investigating how insects can find a host plant from miles away, he became very familiar (and passionate) about antenna design, frequencies, vibration, and how physics links chemistry to biology. "Everything on Earth is an antenna," Doyle says. "Resonance is the key to understanding the natural world."

With proper resonance, he thought, it might be possible to produce healthy, heavy-yielding crops using fewer fertilizers and pesticides. But how could he channel the Earth's energy into his plants' containers?

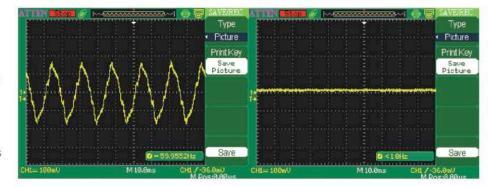
Doyle asked his childhood friend, a gifted electrical engineer named Michael Corsi, for some help. Corsi had obtained his degree from the University of Rhode Island as well; understanding energy, resonance and the ways our environment interacts with us had long been the core of his interests. Starting with his work designing and installing car audio systems, then continuing through his college lab work and his career today as an electrical and control systems engineer, Corsi knew that one consideration was absolutely fundamental to ensure safety and proper functionality in his designs: grounding.

50 Electrity Your Plants! High Times October 2012

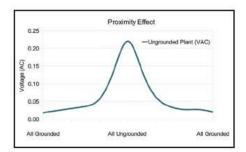
After four years of testing, Doyle and Corsi developed Earth & Grow, the world's first horticultural system that uses natural electrical currents to enhance plant growth. Growing plants with the Earth & Grow system allows plants to regulate themselves, as they have naturally evolved to do. The plants can mitigate positive static charges from AC sources in their environment (lights, fans, dehumidifiers, air conditioners, etc.) as well as take in DC potential from the Earth. "We were overwhelmed with the results and possibilities of our discovery," Corsi says.

Plants using Earth & Grow also have an influence on their neighbors. This is known as the proximity effect: A grounded plant will help "shield" its ungrounded neighbors from AC radiation up to an 18-inch radius. (The exact radius depends on the size and health of the grounded plant; see the results in Figures 1 and 2.) Although the grounded plant helps shield its neighbors from AC radiation, it does allow the DC potential to enter the pots from the Earth, which means the neighboring plants are receiving half the benefits as though they were grounded themselves.

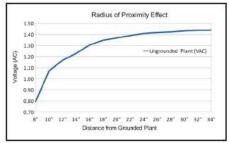
Earth & Grow provides the perfect electrical stimulus needed to enhance gene expression, which means it can unlock a strain's genetic traits. This is most evident in the third generation of grounded plants. Think of it in



(Above): Using an oscilloscope, wavy lines show harmful AC radiation that your plants take in. The flat line shows Earth & Grow shielding plants from harmful radiation. (Below): When you reconnect one plant, any plant within a 3-foot radius benefits. The closer a disconnected plant is to the connected, the more it benefits, but never as much as the one directly connected.



terms of rebooting a computer: By discharging the accumulated stress, you help the plant's internal hardware (DNA) function to its maximum potential. The overall vitality of the



plant is greatly enhanced in terms of flavor, aroma, healing properties, increased yields due to bud density, node expression and the prevention of bud mold or rot.

High Times October 2012

52 Electrify Your Plants!

University researchers and industry professionals have verified the benefits of Earth & Grow on many species of plants. The results will vary depending on species, but the system allows all potted plants to regulate biotic and abiotic stressors more efficiently, which is essential for maximizing growth, health and yield.

Earth & Grow's patent-pending technology works by inserting a soil probe into the plant's medium and connecting it to the controller. The system will not increase your electric bill and can be used year after year. Patients, caregivers and industry professionals have observed Earth & Grow's effects on cannabis and agree that the plants are stronger, healthier and more vibrant. Patients have reported a more effective healing medicine complemented by increases in flavor and storage life. Lab results also show consistently above-average levels of THC, CBD and CBN (though more testing is needed to determine exactly how much Earth & Grow increases these cannabinoids).

Keep in mind that less is more when using the Earth & Grow technology. Be careful not to overwater or overfertilize your plants: Earth & Grow stimulates their metabolism and allows them to maintain optimum nutrient levels and water balance. With practice and patience, you will achieve amazing results without



aggressive fertilizing or pinching, pruning and training techniques. This will not only save time and money, but will also result in much healthier and heavier-yielding plants.

For more info visit earthandgrow.com.