

Annual Update for Regenerative Agriculture Week

Analysis by [Dr. Joseph Mercola](#) ✓ Fact Checked

STORY AT-A-GLANCE

- › The Organic Consumers Association (OCA) is a family of organizations that include Regeneration International. The Regeneration International research farm in Miguel de Allende, Mexico, has started a reforestation project using mesquite trees and agave plants
- › Agave leaves (which have always been discarded and considered useless) and mesquite pods can be fermented and turned into nutritious animal feed that costs one-third to one-quarter of the price for alfalfa
- › Donations made to the OCA during Regenerative Agriculture Week will be matched dollar for dollar by Mercola.com
- › My team and I are even creating access to biodynamic practices and better food sources through Solspring®, an authentic food brand that offers Demeter Certified Biodynamic® and organic ingredients from across the globe

It's our annual Regenerative Agriculture Week again, and to give you an update, I interviewed Ronnie Cummins, co-founder and international director of the Organic Consumers Association (OCA). OCA is one of the nonprofits we donate a portion of our revenues to each year.

While giving out information is important, we also want to make sure we can pave the way to make it easier for you to actually implement healthy changes such as switching

to an organic diet. That's hard to do unless organic foods are readily available, and OCA is wholly dedicated to that mission.

About the OCA

The OCA is actually a family of organizations that include Regeneration International, which has a research farm in Mexico. It's staffed by about 50 people, mainly agronomists and farm workers. They also have a research farm in Minnesota that operates primarily during growing season. In the winter, they grow foods in a specially designed solar powered greenhouse.

"There is a way to grow green vegetables year-round, but we have to stop prioritizing GMO soybeans and corn in the Midwest and start prioritizing food for real people if we're going to do that," Cummins says.

"In Mexico, it's a totally different situation. We're in a semi-desert area near San Miguel de Allende. Our research on regenerative and organic food here is focused on how you can grow a bunch of food and basically restore the environment when you don't have wells and you don't have rainfall eight months a year.

We only get rain three or four months a year, so it's necessary to use all these permaculture type practices. In a good year, we get 20 inches [of rainfall].

So, we have ponds where we catch millions of liters of water from the mountains. We have cisterns below all the buildings. We catch the water on the roofs and put it into the cisterns. We have composting toilets, recycled shower water, and we try to grow crops and trees that are adapted to low moisture."

The 75-acre farm needs to collect and store about 12 million liters or 3 million gallons of water during the rainy season, which then has to last the rest of the year.

Crops that work well in this semi-desert and have low water requirements include native desert plants and trees like agave and mesquite. Growing these has allowed the farm to

re-green the desert landscape and produce fermented animal feed that's both inexpensive and healthy.

Air Layering Project to Begin

The regenerative farm in Mexico is now gearing up for a new reforestation project. By taking a limb from a healthy mesquite tree, adding some natural hormones and wrapping the branch with a bag filled with compost, you will, after three to four months, have a small tree ready for planting as new roots grow into the compost-filled bag. At that point, you can either plant it into a container, or directly into the soil. This process is known as "air layering."

"Our 1-year-old mesquite trees are as big as a 7-year-old mesquite tree from a seed," Cummins says. "It's a method that we're really excited about. People in the Southwestern U.S., Texas and the Southwest, are very familiar with mesquite because there's so many of them.

Texas, I believe, has 55 million acres of mesquite. The bean pods on the trees are highly nutritious. You can make flour and bake with it. Animals also love the pods as an animal feed."

The roots of the mesquite tree can burrow hundreds of feet down in search of water, and they in turn provide nutrition for other plants. As explained by Cummins, they exchange liquid carbon from the tree for the nutrients from the soil.

"The combination of the native agaves and these types of nitrogen fixing trees is the real key to restoring the environment," Cummins says. "Originally, 400 years ago, this was a savanna. It had oak trees. It had lots of mesquite trees. It had a different climate.

The timber was valuable, though. The Spaniards basically deforested much of Mexico over the years, because they needed charcoal for the silver mines. In Europe, they loved the mesquite trees and the oak trees for building purposes –

building ships, houses and so on. Once they deforested large swaths of Mexico ... it changed the climate.

Now, the native trees need human intervention to reforest. But if you can come up with a system, which we have, that rewards the small farmer or the rancher right away – in this case because they get low-cost animal feed that's much cheaper than alfalfa or corn silage – you can get people to start adopting this [strategy].

We've planted about 350,000 agave seedlings in the last two years, and we're seeing the popularity of this system now starting to spread. We're actually getting inquiries from all over the world now, including ranchers in Texas who would like to improve their pastures and their ecosystems in general."

Creating a Win-Win Situation

When you hear "agave," chances are your mind goes straight to tequila. As explained by Cummins, the state of Jalisco grows 500 million blue agave plants for the tequila industry. The problem is, they're being grown as a monoculture. All preexisting vegetation is cut down to make room for the agave. They also use chemical fertilizers, typically RoundUp. Together, it degrades the landscape rather than improves it.

“Forty percent of the world is arid or semi-arid, and is in danger of reverting to outright desert where nothing will grow. But we can reverse this process using native plants and organic and permaculture techniques. ~ Ronnie Cummins”

What OCA and Regenerative International are doing is organic, regenerative and biodynamic. It preserves biodiversity and makes use of the natural potential of the plants. The big breakthrough came when a local farmer figured out that the leaves of the

agave plant, which are huge biomass, can be fermented and turned into nutritious animal feed.

A single agave leaf can weigh 40 to 80 pounds, and these leaves were always discarded. "For thousands of years they were considered junk," Cummins says. What they found was that you can place finely chopped leaves in a closed container and ferment them.

To that, you can also add mesquite pods. Cummins has been using a mix of 80% to 90% agave leaf and 10% to 20% mesquite pods. This mix is superior to alfalfa in terms of nutrition, but costs only a third or a quarter of the price.

Cows, sheep, goats, pigs, chickens and even sheepdogs, enjoy it. A big part of the cost-savings is from the reduced water consumption. Alfalfa needs about 26 times more water than agave and mesquite. Most of the animals on the farm eat the natural vegetation and get the agave mash as a supplement. However, by adding garbanzo beans — another low-water crop — you could produce a feed that the animals could live on exclusively.

"We think it's a good idea to graze the animals," Cummins says, "even in the dry season when there's not much vegetation. But we graze them a lot less than has become the custom over the last 100 years.

Sixty percent of Mexico, like the Southwestern U.S., is semi-desert arid, and it's been over-grazed. So, we need to get back to a regenerative grazing situation where you partly rest the land, you're reforesting it and using contours to help retain the rainwater.

Forty percent of the world is arid or semi-arid, and is in danger of reverting to outright desert where nothing will grow. But we can reverse this process using native plants and organic and permaculture techniques that modern organic farmers have developed over the last 50 to 100 years.

Alfalfa is a great perennial if you have plenty of water and you're not draining the aquifer. But that's not the way it's being done. In Southern California, the

giant dairy farms, the giant feed lots that are feeding alfalfa to the animals across the Southwest, these areas do not have the water availability to be doing this. We've got to stop that and start looking at the long-term water resources we have."

Bringing the Rain

The amazing thing about reforestation is that it can actually change the climate and improve rainfall. Regenerative ranchers in Northern Mexico, in the Chihuahuan Desert, who have added 1 million acres of rotational grazing, report getting 15% to 20% more rainfall than their neighbors who haven't regenerated their land.

"You can literally bring back rain to a level that was traditionally there, if you regenerate the landscape," Cummins says. "You do this not just with human ingenuity and stewardship, but the animals are totally necessary to speed up this process. We need animals grazing in areas, even the semi-arid areas, but we don't want them to over-graze ...

We need to use their natural behavior in conjunction with what we're doing to restore the environment. And we can do that."

New Market Opportunities

Cummins laid out a plan for transforming the U.S. through regenerative practices in his 2020 book, "Grassroots Rising." In the U.S., market demand is one of the primary factors driving regenerative farming and ranching. There is a bigger demand for grass fed meat and animal products now than there was 10 years ago, but it's not growing fast enough.

Feed lots and factory farming still dominate, in part because that's what our government subsidizes. Changing the farming subsidies to prioritize regenerative farming would go a long way to changing the status quo. Encouraging private investors to put their money where their mouth is, is another possibility.

"I'm pretty excited about this. There's a new type of asset being developed on the stock exchange. The rules are being written up by the Securities and Exchange Commission. These are called Natural Asset Stocks, or Natural Asset Corporations.

This is a type of stock different from anything we've seen up until now. The government of Costa Rica, for example, is putting all the lands that the government owns, the forests and the farmlands, into a Natural Asset Corporation.

So, if you're a manager of a pension fund, or an investor, or a corporation, you can invest in one of these natural assets. You don't own the land, you're not having a lien on any of the income that comes from this land. What you own are the ecosystem services that the land provides.

For example, you've got this system of agave and mesquite trees. We are incorporating now to where someone can own the environmental services. In other words, the amount of water that we're saving, the amount of carbon that we're sequestering, the amount of methane that our animals are releasing — they're releasing less when they eat this fermented silage.

Instead of going to a corporation or a foundation and looking for a donation, what you do is you say, 'Would you like to invest in a natural asset?' And then over time, as the forest matures, as the system matures, as you regenerate the soil, your asset is worth more money. If you choose to sell that asset, you can actually make money off of it.

This is very appealing to Wall Street at this point. They're really worried about their reputation, as they should be, but they also are not going to change overnight what they're doing. But this is a way that they can pull some of their assets out of financial assets and put them into ecosystem assets, and still get a return on their money.

But this is like organic certification. You can't just say that you're doing a benefit to the environment and then get people to invest in this benefit. You have to be able to prove it. We've developed a system of verification that is quite accurate scientifically. It involves measuring things like the numbers of plants, the size of the plants. You do soil analysis and so on, the traditional things you would look at.

But then with modern technology, it's possible to fly a drone over the area and take photographs. And then you compare your measurements on the ground with what the drone is seeing through their multiple cameras.

And then you develop an algorithm and progressions to where you can then fly the drone over another area that you haven't measured on the ground, and you get the readings on how much carbon biomass is in the environment. You get a reading on other ecosystem services."

Reasons To Be Hopeful

They're also using a blockchain accounting system to verify the calculations and make it very difficult to cheat. So, anyone who invests in a natural asset will be able to verify, several years down the road, at a very low cost, whether the asset has improved or degenerated.

"When people ask, 'Are you really greening the desert?' 'Are you really restoring the environment?' 'Are you conserving water?' 'Are you producing important food for animals and humans?' you'll be able to prove it one package.

There's \$125 trillion out there invested in financial assets. Most of this is degenerating the planet. But there's \$125 trillion-worth of natural assets that are not valued right now. We believe that approximately 1% of the financiers and the corporate money managers and pension managers right now are quite concerned about the environment, the same way we are, and are ready to start moving a portion of their assets.

We only need to move 1% in the next decade to get the ball rolling. The benefits of regenerative food and farming are far beyond even just the ecosystem benefits. As we've seen during the pandemic, sales of organic food have grown substantially.

Sales of dietary supplements have grown substantially. A lot of people have learned the joys of cooking at home again, instead of going out to restaurants. We've got a potential market demand. We just need to get the ball rolling."

The Regenerative Network

Regenerative International, incorporated in 2014, has since built a global network of regenerative farmers and ranchers, with some 400 affiliates in 60 countries. You can find a [map of these regenerative farms](#) on RegenerationInternational.org.

Much of the energy over the past seven years has been spent on educating the world about the importance of regenerative farming practices, including its ability to improve climate, preserve water and improve nutrition. Today, most people have at least heard about regenerative farming.

The primary focus now is to seek out the best practices and make sure they're shared, publicized and duplicated. The fermented agave idea, for example, came from a local farmer who visited the Regeneration International farm in Mexico. He asked if they'd heard of fermenting the leaves for animal feed. He'd been doing it for 12 years, yet no one had ever heard of this strategy.

As it turns out, it's a fantastic solution that solves several problems at once. There may be other solutions out there that people just don't know about, and Regeneration International aims to find them and share them, worldwide.

My New Line of Certified Biodynamic Products

My team and I are even creating access to biodynamic practices and better food sources through Solspring®, an authentic food brand that offers Demeter Certified Biodynamic® and organic ingredients from across the globe.

Not only are we making it easier for the average person to shop, cook and consume biodynamic products they can trust, we're also supporting farmers worldwide by offering a premium price for their harvests. From the U.S. to India, we strongly support their transition to biodynamic practices, and building healthier, more diverse farmlands.

OCA Is Paving the Way

Since its inception in 1998, OCA has worked to educate people about organic, biodynamic, regenerative food. Cummins spent a couple of decades fighting for the organic industry before that as well. They've also educated the public to realize that farming does have a big impact on the environment.

"If you care about clean water, for example, you better care about regenerative agriculture," he says. "If you care about animals, you better care about how factory farming is an abomination, and so on. We've created, I believe, the potential market demand.

We simply have to have the products available, and we have to stop governments from subsidizing degenerate food and farming. The market has the potential to correct a lot of the problems out there, if we work together to do that."

Today's your chance to help us achieve that mission. Every dollar you donate, I will match during this fundraiser. As explained by Cummins, all funds raised are used to further the mission of OCA and Regenerative International.

[Donate Now](#)

"Most groups in the world that care about regenerative food and farming are strapped for cash. For example, we have 50 people at this research farm in Mexico. Most of them are graduate students from agronomy schools. We provide housing. We pay them a wage. It costs money to do this, and it costs money to pay for the school buses that come with kids on them, and the small farmers who come in to see what we're doing.

OCA has always tried to be an international organization, so part of the money we raise goes to our international staff. We have one staff person in Africa. We've got one in Southern France, one in Australia, one in Argentina. This is what we use our money for.

I spend half my time exposing the bad stuff ... and the other half on positive solutions. You get frustrated after 50 years in the organic movement of asking the government to please stop allowing cheating of standards. Lo and behold, we're getting to the point where we're going to be able to measure a lot of these things scientifically, and verify them. If USDA organic seal isn't enough, we'll have another seal that you can get behind.

In this day and age, you can know where each piece of meat came from, each fish, each vegetable. That's what we're going to have to move to. We need organic standards that are truthful. We have unfinished business in the U.S. because the government's special interests have blocked mandatory labeling of GMOs.

They're not requiring labels on nanotechnology. They're lying about pesticide residues, and so on. We have to keep fighting the battle for truthful labeling and transparency, [and] thank goodness, we're at a point where we're going to be able to have a better method, not only of farming, but of proving that [organic, regenerative methods] are being employed."

So, please consider making a donation to the OCA today! I'll match all donations, dollar for dollar during this weeklong fundraiser.

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