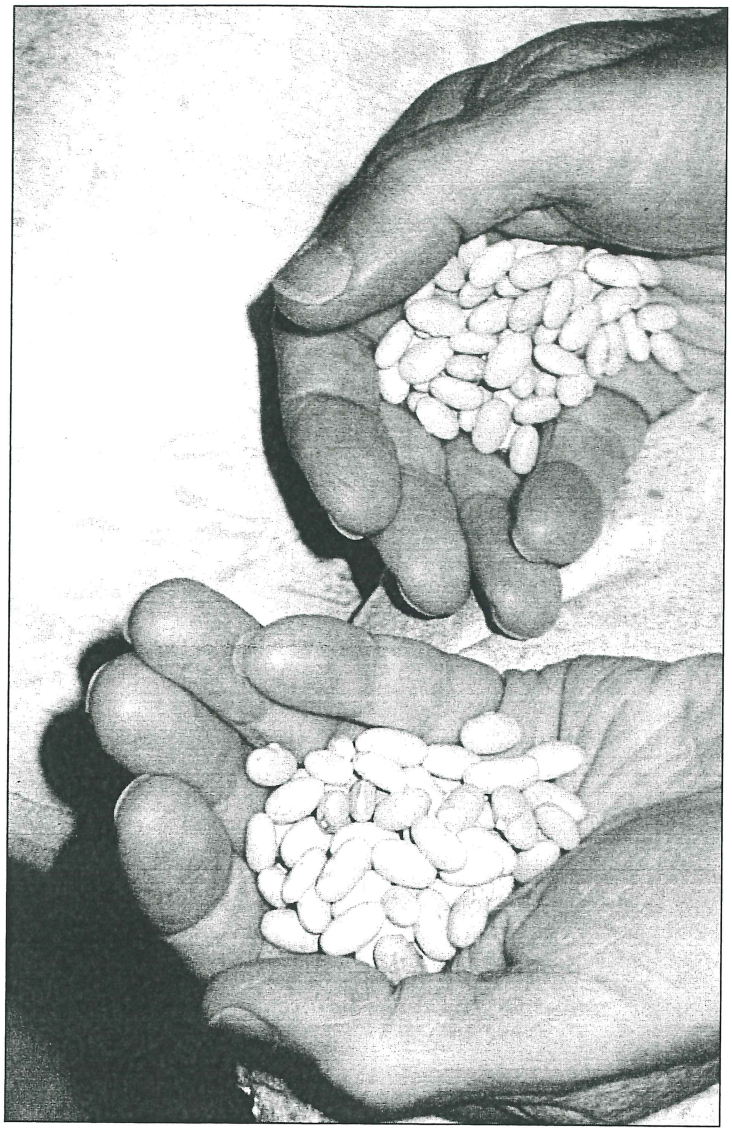

Rhonda Bernstein

The enola beans patented by Colorado farmer Larry Proctor (top), and the mayacoba beans grown for generations in Mexico (bottom).

The Mystery of the Yellow Bean

The Politics of Patenting Foods

BY SANDY TOLAN

Meet bean person No. 1: Larry Proctor, in jeans, western shirt, and red beard, nodding to a sign by his scalehouse — "Red Beard Beans." We're on the Western Slope of the Colorado Rockies, in a stunning valley framed by the San Juans, the Raggeds, and Needle Rock. "The house due to the east of us here is the house that I was raised at and the farm that I grew up on," says Proctor. The mountains to the northeast of us hide the town of Aspen.

From the southeast, the Gunnison River runs down Black Canyon and into irrigation canals to water this hard, rocky valley, and its rows of corn and peas, onions, and beans. It is in this place, a few miles away, that Larry Proctor began work on what he calls a new invention.

In Mexico a while back, Larry Proctor bought a bag of beans at a local market. Some of them were beans he'd never seen before: creamy color, with a yellowish tint. He was curious. So he brought them over to his friend Harold, a retired dairyman whose home sat on a piece of land far from other bean fields — so that the two men could try out an idea, without fear of cross-pollination from other plants.

Proctor points to where they planted the yellow beans and says, "We planted them here because, at that time, none of the farm ground in this area here grew beans." They laid the seeds in the earth, and began to watch, generation after generation, selecting each time for ever-yellower colors. With each generation, Proctor says, the roots ran deeper than other bean plants; the pods were more hardy, more resistant to moisture.

"Every day [Harold would] call up and say, 'Well this one's flowering, that one's flowering. Man, those are mondo leaves!' Every day. And he'd say, 'Come over!'" Proctor explains. "I started getting the idea that there was something going on, and that there might be something worthwhile out of our basically playing. And eventually, kind of like a light, it just kind of dawned."

This was special, Proctor thought, and he wanted to protect it. So he applied for and got a plant variety protection certificate from the U.S. Department of Agriculture, which gave his family-run company exclusive rights to multiply the new creation: the enola bean, after his wife's middle name. Then he went a step further, to the U.S. Patent and Trademark Office, to apply for a patent for his new invention. This would prevent others from developing any new beans based on the enola. And, he thought, it would

give hurting farmers in this valley a chance to grow beans that could fetch a better price. In 1999, the government awarded the patent to Proctor's company. The basis of the patent? Its color.

MARTÍN ROBLES AND THE MAYACOBA

Twelve hundred miles to the south, meet bean person No. 2.

Martín Robles is an agronomist who works with a bean cooperative in Los Mochis, Mexico, near Tobolabampo and the Sea of Cortez. We stand on the soil of the Rio Fuerte valley, good land for beans, watered by the rivers of the Sierra Madre. Martín explains his surroundings: "Right now we are seeing here a lot of different kinds of beans. Some alluvial beans, some canario beans, some asufrado beans, grown for tests...."

All around us are men with clipboards and baseball caps, fingering leaves, crouching in front of seed pods. "This is *campo experimental*, experimental field. There are some agronomists working here all the time, doing research and trying to improve the characteristics of the crop," says Robles. It is here, Robles says, that Mexican breeders came up with their own new life form. He says the beans have been around. Years ago, archaeologists discovered yellow beans in a cave in the Peruvian Andes and dated them back at least four millennia, to before the Incas. Thousands of years later, Mexican agronomists crossed two yellow-tinted varieties and came up with the modern version of the yellow bean. This was back in 1978. They called it mayacoba, after a nearby village in Sinaloa state. Mayacobas have been coming out of this valley, thousands of tons worth, ever since.

Robles says, "It's ironic that people here developed that variety of beans, that they actually have a name, mayacoba beans, for the community that first grew them. Some researchers here devoted many years to do research and experiments. And in two or three years, someone [Larry Proctor] claimed them as their own invention."

REBECCA GILLILAND: A BEAN EXPORTER SHUT DOWN

All this brings us to bean person No. 3 and her Nogales, Mexico warehouse, buzzing with forklifts carting not beans but fresh produce, from semi-trailer to drive-in cooler. If Rebecca Gilliland had her way, the coolers wouldn't even be running. This warehouse would be choked with bags of yellow beans. Instead?

Gilliland says, "We have eggplants, we have roma tomatoes, we have cucumbers, we have pickles...." But not a hill of beans in sight. In the early '90s, Gilliland retired as a small oil producer in California and came to Arizona, wanting to do something at the onset of the North American Free Trade Agreement. She traded produce for a couple of years, but all the time kept thinking of the yellow beans she ate as a child, two hundred miles to the south, in Obregon, Mexico.

"In 1994 I was missing, here in the United States, the beans they've been eating in Mexico," says Gilliland, "the one I grew up with, the peruano mayacoba. It's very, very delicious. Once you eat this bean, you never eat the pinto again. The taste is so unique."

"Besides the taste, it doesn't give you gas," she laughs.

Mexicans love these beans, Rebecca Gilliland thought, and more and more Mexicans are living in the United States. So she started talking to Martín Robles' colleagues down in Los Mochis about exporting the Mexican yellows. Soon she was doing it, building up the business slowly, working on the distributors and grocery chains.

"They don't want to buy in the beginning," Gilliland says. "I say, 'Fine, don't buy it. Just let me put it there. If you sell it, good, you pay for it. If you don't we come and pick it up.' So they did. And they sell it. As soon as the consumers know that they're bringing that kind of bean into the United States, they started requesting it. And the demand started getting bigger and bigger, you know."

The first year, Gilliland says, she imported half a million pounds of yellow beans; then a million. And by 1999, she says, she was up to 6 million pounds, or about a semi-truck load every couple of days. The next year, she says, business was to triple. The market was ready.

"In '99, the whole dream collapsed," says Gilliland.

"They actually have a name, mayacoba beans, for the community that first grew them. And in two or three years, someone claimed them as their own invention."

> **"I don't know where they got the idea that they can register something that's used all the way back to the Aztecs!"**

That's when a letter arrived from Larry Proctor's company in Colorado, saying they invented the yellow bean. "And it was against the law," says Gilliland, "illegal for me to continue bringing that bean from Mexico. So they say they're very proud to notify me that they own the patent, they invent it. In the beginning I thought it was a joke." She laughs.

In fact, Proctor's company now owned the U.S. patent for any beans falling within a range of yellow on the color spectrum. And so Larry Proctor, with associates and a legal team, flew down for a meeting with Becky Gilliland on the border.

"They asked me when I started selling the beans. And I told the guy, 'Way before you invented it. These beans are from Mexico, and these beans are being legally declared through customs. We're not smuggling anything.' And I say it's very surprising that you just invent it when I've been eating it for 30 years, you know?" Gilliland says.

Proctor suggested they could work it out if she paid a licensing fee — up to 6¢ per pound. For bringing in the very beans she grew up eating? Gilliland didn't think so. So Proctor's lawyers slapped a patent complaint on her desk, saying, "You are legally served."

WHO OWNS THE BEANS?

Now suddenly this was no ordinary hill of beans, and a lot more than three people were fighting over it. Some were lawyers, some were farmers, and some represented an astonished Mexican government. Ricardo Hernandez Muñoz, a commerce specialist in the international affairs division of Mexico's Department of Agriculture, says, "We got to the point where we said, 'Well, I don't know where they got the idea that they can register something that's used all the way back to the Aztecs!'"

"I thought, well, let's register hamburgers then. And let's charge a penny for every hamburger that an American eats. It's the same way. It's something that's part of the country. You cannot take it out just and say, 'Hey, I discovered a yellow bean.' Sorry, my friend. That has existed for more than nations," Muñoz says.

Bean breeders in the United States and Latin America tend to agree. The Center for International Tropical Agriculture, in Cali, Colombia, is challenging Proctor's patent. The action is pending before the U.S. Patent and Trademark Office. CIAT holds 260 kinds of yellow beans in its public seed collection. It has done DNA analysis comparing six of those yellow varieties to Proctor's beans.

The findings, according to center director Joachim Voss: "We're comparing the genetic fingerprint of the enola beans with the most likely candidates in our gene bank, and what we've found preliminarily is that we have an identical print with a number of other varieties that we have in our gene bank."

Plant geneticists say there wasn't enough time between when Proctor first bought the beans in Mexico — 1994, according to his patent application — and when he first applied for the patent, to make a real invention. Proctor now says he went to Mexico in 1990 — hasn't been back since, he says again and again — a timeline which could give more credibility to his claim of having had sufficient breeding time to invent a new bean.

THESE BEANS LOOK YELLOW, YOUR BEANS LOOK YELLOW

Back on the Western Slope, Jason Proctor, Larry's son, is flanked by rows of one-ton bags of yellow beans; before him is a quivering, bubbling, dry, yellow river — beans on the march down the sorter. "As they come across the conveyer up atop of the roof," Jason explains, "you can see where they're dropping into this bin. This is a series of four screens here that take out sticks, dirt clods, rocks, and splits."

I pick up a handful. They look to me a lot like the mayacobas from Mexico. I'd like to look at the two kinds side by side, but Larry Proctor says no. On the advice of counsel, he says I can't take them with me.

Later, by the patch of land where the enola was born, Larry Proctor insists: The enola is not the same as the mayacoba. "It's not. It's not of the same color. It's not the same as what I started with here," Proctor reiterates.

This seems as good a time as any to pull some beans, yellow and from Mexico, from my pocket. "Well you know what, I brought a few beans. Do these look familiar? They're yellow."

Proctor replies, "Notice the darkness of the bean and how round it is here. In my warehouse you saw beans that were more oblong."

"So these are different to you. These beans look yellow; your beans look yellow. But you

see a difference?" I ask.

"I can see a difference."

So, I ask Proctor, if they are so different, then how could the beans from Mexico be infringing on your patent? He suggests that some of the beans Becky Gilliland was importing could actually have been enolas. He tells the story of some enolas he shipped down to a trade show in Mexico City a few years ago. They never arrived; perhaps, he suggests, they were intercepted. Or there's the possibility that Mexican migrants, who work the fields nearby, could be responsible.

"And a lot of those people, they stock up on yellow beans for their trip home," Proctor adds. "And where they take it, and what they do with that, is not always known to us."

It's not clear why anyone would want to take Larry Proctor's enolas to Mexico, and re-export them to the United States, when Mexico has had the mayacoba for decades.

A WISE USE OF THE PATENT SYSTEM?

Whatever differences may exist between the enola and the mayacoba, when it comes to getting them to the marketplace, they seem to be treated pretty much the same. A bean trader in Denver says every time he gets a bag of enolas from Larry Proctor, he slaps a mayacoba label on it so consumers know what they're getting. Warehouses in Los Angeles and Chicago say as far as they're concerned, the beans are interchangeable. Most seem to agree that this niche Latino market in the United States, dominated now by Proctor's enola beans, was created with the initiative of Rebecca Gilliland, the would-be bean trader in Nogales.

Gilliland says after Proctor demanded that U.S. Customs agents begin inspecting her yellow bean shipments at the border, and with Proctor's lawsuit and demands of up to 6¢ a pound for a licensing fee, her Mexican growers had had enough.

In Mexico, not even a trickle of beans heads north to the border. Anticipating NAFTA, the bean co-op in the Rio Fuerte Valley made a big investment in the sorters and stoners that made for an export quality yellow bean — equipment that now lies idle, except when curious visitors pass.

Bean breeders all over the United States wonder: If you can patent a yellow bean, why not a black bean? Or a red bean, or a navy bean? Is this the proper way, they ask, to use the patent system? Another U.S. patent has been granted to a popping bean, whose origin lies in Peru. And to a variety of American basmati rice, with genetic heritage in the Indian subcontinent. And there are patents for corn and soybean, genetically engineered to resist herbicides, and rice infused with Vitamin A. And for pesticides based on the genetic properties of the Neem tree in India.

"The problem arises in an increasingly competitive global climate that corporations and individuals seek any means available to gain competitive advantage."

CLAIMING GENETIC WEALTH

Back in Colombia, CIAT director Joachim Voss says: "The problem arises in an increasingly competitive global climate that corporations and individuals seek any means available to gain competitive advantage." In the current climate, public seed banks like CIAT are now demanding that researchers in the United States and elsewhere sign agreements not to use the seed for commercial purposes, lest this public knowledge get locked up by private interests. Now Voss's colleagues at CIAT find themselves urging Third World countries to lay claim to their genetic heritage before someone else claims it. Voss also suggests protecting a name, like France did for champagne or the Scots did for Scotch whiskey, but India has not done for basmati.

As crop varieties come increasingly under the patent system, he says, farmers in the Third World will now have to get their minds around an utterly foreign concept. "I've worked with farmers in Asia, Africa, Latin America," says Voss. "Universally those farmers freely exchange varieties between themselves as a form of reciprocal seed exchange. And they're delighted when someone else recognizes the value of the varieties that they are using. For them the idea that you might put proprietary claim on a variety is coming from the moon, if I can use that expression. It's just totally outside the realm of their social values." ■

Sandy Tolan is co-founder of Homelands Productions, which specializes in stories about the intersection of the global economy and local communities. A similar version of this story was broadcast in 2001 on American Radio Works, a documentary collaboration between Minnesota Public Radio and National Public Radio News.