

## Truffles – Black Gold in North Carolina

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People call Franklin Garland the “father of truffles.” His wife, Betty, prefers the nickname “Truffle Czar.” And Garland, using an analogy to legendary nurseryman Johnny Applesseed, leans toward the colorful moniker “Franklin Trufflespore.”

“But that name hasn’t exactly caught on,” he says with a hearty laugh.

No matter how he’s labeled, Garland – who commercially harvests truffles in eastern North Carolina – will forever be remembered as the pioneer of a truffle industry that, seemingly overnight, has exploded in North Carolina.

These truffles aren’t chocolates. Don’t worry – I didn’t know that either.

They are, instead, an edible fungus that’s used as a flavor enhancer in cooking and food processing. Truffles affect culinary items that have a natural fat, such as butter or olive oil. Cultivators have described truffles as a natural MSG, and they say the truffle remains in high demand because of its unique, exotic and earthy odor.

Truffles are hardly contemporary, though. Their history dates as far back as the fourth century B.C., when they appeared in the writings of Greek philosopher Theophrastus. The Muslim prophet Muhammad once was quoted as saying truffles were “Manna which Allah sent to the people of Israel through (Moses), and its juice is a medicine for the eyes.” During the Middle Ages, truffle traces could be found in medieval recipes. And to some, they were aphrodisiacs. African, Middle Eastern and European kings legendarily ate them by the basket.

In recent years, though, the truffle has achieved a new and far more practical status as a viable crop. For centuries, farmers balked at the notion truffles could be cultivated. They grew in the wild, falling off the roots of oak, hazel and beech trees where they would be dug up and harvested. But European farmers were among the first to begin planting trees for the sole purpose of producing truffles.

And for a time, it worked. The valuable black Perigord truffle, for instance, helped revitalize whole areas of Italy that had been economically devastated in the early 20th century. Drought, pollution and two world wars, however, wiped out the bulk of the wild truffle crop in Europe, setting the industry on its heels. The setback was temporary. Over the past four decades, truffles largely have been produced by Italian and French farmers, though the industry gradually is expanding to include Spain, New Zealand, Sweden, Australia, Chile and the United States.

### A FOUNDATION FOR TRUFFLES

Ironically, America’s “father” of truffles – Garland – might not be in this business if not for his sons spilling an inordinate amount of lime on his soil.

For a truffle spore to properly grow near a tree’s root, the soil’s pH level must be between 7.9 and 8.2. North Carolina’s soil generally measures around 6.5, while chief truffle-producing farms in Italy have pH levels closer to 7.9.

Garland’s primary business is his nursery, which occupies acreage in Hillsborough, N.C., 14 miles outside of Chapel Hill. His family grows trees for sale, and he already had plenty of trees in the ground when he stumbled on the truffle. It couldn’t have happened at a better time.



“I had almost given up (on farming), believe it or not,” said Garland, who had been in business since 1979 but was struggling. He was maintaining his orchard, but felt he was at a standstill. As a last ditch effort, he contacted the academia at Oregon State University, who advised him to experiment with the development of alternative crops.

In the late 1980s, Garland and his sons committed to truffles and gradually began increasing the pH levels in their soil.

“We really sort of overdid it with the lime one day, and by doing so, accidentally got it ... to the right levels. Let’s put it that way,” Garland said.

It worked. By 1992, Garland was producing the first commercially grown truffles in the United States. “And while I’m the first commercial grower,” he said, “we really didn’t have any substantial products until (that year).”

By “substantial,” Garland means 50 pounds – not tons – of truffles a year. And that’s not even close to meeting the demand Garland receives at his farm. Unsolicited, he estimates that he fields requests for between 500 and 1,000 pounds of truffles a week. His clients are restaurants and gourmet food stores. In fact, Garland’s main customer for the first 10 years of his orchard’s existence was celebrity chef Emeril Lagasse, who would buy almost all of the farmer’s truffle inventory each month.

“We estimate that demand for truffles in the U.S. hasn’t even really started,” Garland said. “We are at the tip of the iceberg.”

### **CLIMATE RIPE FOR FUNGUS**

The trend, if one can call it that, is catching on. Garland estimates there are more than 100 truffle farms, of various sizes, in North Carolina. Farmers in the Pacific Northwest are experimenting with truffle harvesting, but recent history shows that the Mid-Atlantic states – Tennessee, Kentucky, Virginia, North and South Carolina – have ideal circumstances for growing truffles. Soil structure, annual temperatures, and rainfall totals all factor into the equation, helping the Carolinas resemble the European regions that produce the finest truffles.

“Climate-wise, these states have proven to be very workable,” Garland said. “We have well-marked seasons out here, which we believe is one of the primary requirements for growing the types of truffles (clients) want.”

Garland said there are at least 120 classified species of truffles and up to 200 total categories. Only a handful has commercial value, though, because they are edible and possess a coveted flavor. Perigord Black, the Italian Alba white truffle, the black Burgundy, and the black summer truffles top most aficionados’ must-have lists.

“At this point, in the U.S., truffles have become known but they’re not yet readily available,” Garland said. “So people have been relying on truffle flavors (to enhance) their food. They use truffle oil or extremely thin-sliced truffles.”

That may have to do until local truffle farmers can start producing major amounts of truffles. According to Garland, for an individual farm, “major” means more than 100,000 pounds of truffles per year. But this is a slow-moving industry that requires a substantial commitment of time, energy and, most important, money. Trees planted today might not start producing substantial amounts of truffles for at least seven years. Garland admits he’d prefer to be harvesting truffles full time, but has avoided taking the plunge because it is such a long-term investment and the results, while promising, are not proven.

“I’m planting every year,” Garland said. “I got caught up with the nursery business, with it being so attractive, that I went in that direction fearing that the orchard was going to give out and I wouldn’t have a decent replacement. At that point, I started partnering with nearby farmers, so I could travel to their (truffle) orchards and help out.”

### **BORROWING EUROPEAN SECRETS**

One of those partners is Jack Ponticelli, a certified jack-of-all-trades who divides his time among two N.C. farms and a hot air balloon business (he’s a certified pilot). Ponticelli also boasts an agricultural background – he was a forest ranger – and stumbled upon the truffle industry while trying to patch up damaged relationships between farmers and balloonists.

“The balloonists, at the time, would land in the farmers’ fields and mess up their crops. Each party was ignorant of the other one,” Ponticelli said. “And farmers are very traditional. They pride themselves on their land and their crops.”



Ponticelli reached out to the farming community in his home state of New Jersey. He volunteered to head up an agricultural group, and began researching alternative crops that could stimulate New Jersey's stagnant farming community.

"When I started, the Internet was brand new," Ponticelli said. "I was using dial-up connections. I typed in the search words 'alternate crops.' ... After about two days of searching, I came up with the Northern Italian Truffle Institute. At that time, all of the data that they had was online. And they didn't realize how far the Internet stretched. So I downloaded 50 pages. On dial-up. And they were in Italian! So I had to go to a translator to have it translated. I understood some of it. But there were no translation programs at that time."

Realizing he, and other farmers, could duplicate European conditions in the States, Ponticelli started preaching truffles to anyone who'd listen. Garland, who'd already been to Europe several times and had carried some of its secrets back to the Carolinas, heard every word. The duo entered a fruitful partnership in 1992. It continues to this day.

Ponticelli echoes Garland's sentiment that North Carolina is in the opening stages of what could be a prosperous season.

"This is an industry that is at its beginning," he said.

Ponticelli operates two farms about an hour outside of Charlotte. His 75-acre Piedmont Valley farm – headquarters of the family's Piedmont Valley Truffles company – has 25 acres dedicated to truffle production. He also presides over Black Diamond Farm in East Bend, N.C., which Ponticelli calls his "retirement" farm. Ponticelli and his son, Aron, list more than 400 restaurants throughout the United States that have purchased their products. "He's the CFO and I'm the president of Piedmont Valley Truffles," Ponticelli said.

Over the years, Ponticelli and Garland have seen an influx of interested parties gravitating to North Carolina's truffle industry.

"Since we started, and did the groundwork, there are people with a lot of money coming in. And they want to build 100- to 200-acre farms," Ponticelli said. "The industry is just beginning. We've learned a lot. And they are going to go through a learning curve, as well. It's not as easy as they think."

To that end, both Garland and Ponticelli offer daylong tours of their truffle farms. It's Garland's hope that he can convey to interested truffle barons that this is real work.

"We have a two-hour presentation about how to properly grow truffles," Garland said. "That pretty much convinces people that they don't want to do it."

So far, Garland and Ponticelli have encountered two types of individuals who purchase trees and enter the truffle trade. One is retirees – people primarily in their late 40s to early 60s – looking for a crop to supplement their diminished income. But the second crowd is much younger, probably in their 30s, who see the potential for growth in the truffle industry and are seeking a new form of investments.

Garland falls into the former group.

"My goal is to get 10 acres (dedicated to truffles) out here before I retire, and then I can turn my nursery business over to my son," Garland said. "I just want to be able to harvest truffles and retire, a la Don Corleone (from Francis Ford Coppola's 'The Godfather') harvesting tomatoes."

And they're both content with the fact that they helped launch a booming industry with unlimited potential that really benefits farmers in the Carolinas.

"I've been saying for years that this can be a real good replacement crop for small tobacco farmers," Garland said. "While there are other places where truffles will grow, North Carolina does have (ideal) weather ... so that we can actually turn this whole area into the equivalent of the wine-producing areas in California – Napa and Sonoma – for truffles."