Food Plants of the DeSoto Expedition

1539-1543

by ADIN BABER

FOUR hundred years ago, Hernando De Soto, the Spanish explorer led nearly seven hundred men, four white women, at times a few hundred Indian men and women, a few colored slaves, about two hundred fifty horses, some mules, a drove of hogs, possibly some cattle, and a pack of dogs on an exploratory march through Florida, or what is now a dozen of the southeastern states. After the first few months, all the food was obtained from the country through which the expedition passed.

He first established a base of supplies on Tampa Bay near Bradenton, Florida, and later moved it to what possibly is now St. Marks, when he made his first winter camp just west of the place which is now Tallahassee. By spring, most of the supplies that had been brought in the ships had been consumed. He planned to make a reconnaissance march into the interior and return to the bay, now named Mobile, to replenish them from the supply of the ships. However, he subsequently learned that his army could live off the country. After the famous battle with the Indians of Mobile, he turned away from the coast and spent three more years in the unmapped wilderness.

Of course these Spanish adventurers would have been almost helpless, so far as gathering food plants and subsisting on them was concerned, had it not been for their Indian guides, prisoners, and camp followers. The food plants and vegetables of this continent entirely differed from old world plants in pre-colonial days, and just what was edible could not have been known by the white men. What was lacking in knowledge was made up in hunger and the hardihood to try anything. Many things were tried out as food, and notes were made of it. It is from four different journals, contemporary records, diaries of early travelers, and findings of the earlier botanists, that we can know fairly well what definitely was eaten, what probably was eaten, and what possibly was eaten.

Any Boy Scout can name the game animals, birds, fish, and insects, that made up the meat dishes of the early Indians, and we know that

some of the increase of the swine herd was eaten, so we pass over much of that. Let us see: On the ships that sailed from Havana for Tampa Bay, there was included in the cargoes: 3000 loads Cacabi, *Manihot esculenta,* or Cassava, *Palmata aipi,* 2500 shoulders of bacon, 2500 fanegas of corn, *Zea mays.* There was clothing of all kinds, shoes, etc., arms of all kinds: shields, helmets, etc., ships supplies: sails, ropes, pitch, tallow, etc. There were garden seeds which were to be planted when the first landing was made, "Lettuce, radishes, and other garden stuff."

Had the Spaniards landed in lower Florida, they might have found the Coco plums, *Chrysobalanus icaco,* but these are not mentioned. I do not know if they tasted Sea grapes, *Coccolobis uvifera,* but we know definitely that the "first to land and explore around brought back on board the ships many green grapes *(Vitis vulpina)* and grass for horses." The Guava, *Psidium guajava,* they did not find, but some of them may have tasted it in Central America. All disembarked, and some exploring round about, may have found the Papaya, *Carica papaya,* for it was growing wild in north Florida, in 1774.

In the middle of July 1539, the expedition left the shores of Tampa Bay, and following a trail that later probably developed into the old country road of recent days, went by the Lake of the Rabbit (Lake Mango?) and the Lake of the Flints (Thonotosassa); and, after a torrid march, reached some cultivated fields of the Indians, probably near present Richland, where the first green corn was eaten.

The next few days were spent wandering through the morasses of the Withlacoochee River swamps. If these were finally crossed where there is now a sand road just south of Tsala Apopka Lake, no growing gardens were found to plunder, and the members of the expedition ran out of all supplies, including the emergency rations, "biscuits and cheese." In this extremity they ate "roots roasted and others boiled with salt." Now these could have been the Arrow Head, *Saggitaria variabiles,* or the Swamp Potatoes, *Saggitoria lorata,* such as Cabeza de Vaca, of the ill-fated Narvaez expedition, had to dig while a prisoner of the Indians; or it may have been the roots of the American Lotus, *Nelumbo lutea.* When the villages were found, "Blites" were gathered and stewed in salt water. Now Blites is translated from Spanish Bledo, the Italian is Bledum, meaning in Europe a member of the Chenopodiums; but this genus of plants was not native to this country, or not many of them; so we must determine some "Greens" native to Florida swampland and growing in July and August. It may have been one of the Portulaca, *Sesuvium*

portulacastrum, or *Salicornia ambigua,* or Sea Goosefoot, *Chenopodium maritima.*

July 26, 1539, As soon as the Withlacoochee River itself was crossed, they came upon the Cabbage Palms, *Sabal palmetto,* the hearts of which were eaten. Others ate young corn stalks, and immature ears of corn on the cob. Maybe some ate the fruit of the Saw Palmetto, *Serenoa serrulata,* or the pith of another native palm, *Sabal minor.* Meantime, De Soto, who had gone on ahead with some of the mounted troops, came upon an abundance of provisions near present Ocala, and sent some back by "pack mules to the main army." This was "corn, of which there was much ripe, and other provisions." No doubt, there was the product of the Coonti, *Zamia floridana,* which the Indians alone knew how to prepare; a Spaniard had sampled one of the raw roots and died. For the first time on the trip, they had Beans, of which the Indians grew about all the present known varieties.

These may have been the dolichos, *Dolichos lablab,* for this variety later was seen in that section by the botanist, Romans. And they may have been of the Hyacinth of which there were two species indigenous to Florida. For seasoning these beans were cooked with "little dogs" and wild pepper, and this was no doubt the first hot dogs served to white men in America, July 29, 1539.

August 11, 1539, our Spaniards being well-fed and feeling good, went northward up into the Alachua country where a variation was added to the daily diet of corn. They ate "Chestnuts, but the trees that bear them are only two palms high and they grow in prickly burrs." Now we are on solid ground botanically; these were chinquapins, *Castanea alnifolia.* Striking the trails that crossed the Sante Fe and Suwanee Rivers, as later named, we follow what later became the Spanish Highway across northern Florida, northwest into the Tallahassee country where, as previously mentioned, the first winter camp was established, October 8.

Many provisions were now laid in, including maize, Ranjel distinctly says "Kidney beans," *Phaseolus vulgaris,* dried plums, *Prunus umbellata,* and pumpkins. The pumpkins were described by Elvas at being more "savory" than European ones, *Curcurbita moschata.* In one of the books by Dr. Charles T. Simpson, pumpkins raised by the Seminole Indians, are described as being unusually small and sweet. I think he must be describing the same kind that the Spaniards tasted, because one time when I solicited Indian Anna to purchase garden seed, she briefly said, "No." An interpreter explained that the Indians made a practice of raising their own seeds year after year. Confirming that: The Department

of Agriculture recently collected thirty-three different strains of corn from different Indian tribes. (Chromosomes of Maize from North American Indians Vol. 56 No. 3.) Also was gathered and eaten "Grain like coarse millet" and, at a later period Romans mentions two varieties of edible Panicum. One American vegetable they did not have was the potato, *Solanum tuberosum.* These had not been introduced from South America.

The Spaniards could have learned to prepare properly the St. Johns coonti, *Zamia pumila,* although they had a starchy diet in the ever available corn. In the summer, it had been eaten roasted green in the husk, boiled on the cob, and pounded green for a porridge. By now, the corn was dry and use could have been made of the many mortars the Indians had (Cabeza de Vaca 1528) for grinding it into meal for mush, or it was pulverized into a paste for cooking on the hot stones. The Spaniards had brought along garden tools, and maybe iron hoes were then used to bake the first "hoe cakes." Then there was hominy made with the ash lye; or the corn was boiled with beans for frijoles. Corn was boiled, roasted, and pounded into flour; or it was crushed and sifted through cane baskets, the coarse part boiled with pumpkin, or beans, or bean leaves, then thickened with the fine corn flour, and the whole mass seasoned with soda lye ashes, to make the famous Sagamite.

No doubt all this was washed down with copious Calabash gourdfulls, *Curcurbita lagenaria,* of a good American tea Dahoon, *Ilex cassine,* but I am sure that these hardy souls could scarcely stomach the drink made from "Fruit like a bean," the infamous black drink Yaupon, *Ilex vomitoria.* Then, unknowingly anticipating press agent Raleigh, they filled their new pipes with a soothing blend of tobacco, *Nicotiana tabacum,* and sumac, *Rhus copallina,* and relaxed before the blazing logs of turpentine pine knots.

Then spring came at last. The Live Oaks, *Quercus virginiana,* put out flowers and young leaves and ambition stirred this first group of winter visitors to Florida. They quaffed the great spring beverage and named it sassafras, *Sassafras officinale.* March 3, 1540, packing their remaining maize, they set off up the Flint River valley into what is now Georgia. They camped the first night out in a pine wood, *Pinus rigida,* or perhaps *Pinus taeda,* or *Pinus echinata,* and the second, in a "Land with bushes," Oak scrub, *Quercus nigra,* and in a week came to a place called "Capachequi" where there were plenty of supplies. Among these in this section were "corn cakes and young onions," which Ranjel says, "were just like those of Castille, as big as end of thumb." It may be a moot question

just which Allium this was, but I shall venture *Allium continum.*

By the end of April, having travelled in a northeasterly direction and crossed a few rivers, they were lost and famished, and reduced to a vegetable diet of again "Unknown herbs and greens gathered in the woods," perhaps, *Smilax laurifolia.* There were found quantities of mulberries, *Morus rubra,* and of all good things to eat, the strawberries, *Fragaria virginiana,* and not edible but enjoyable were "Countless roses at the sides of the trails," *Rosa carolina.* They arrived at the Savannah River near the falls (Augusta, Ga.) where Gallegos located seven cribs full of corn, and all was well again. The Indians here lived on "Roots of herbs which they seek in the open fields," perhaps, *Smilax beyrichii.* Surely there were the blackberries, the small ones, *Rubus trivialis.*

Turning north towards the mountains they found the population thin and the food scarce. They fell back on corn and little dogs, but after crossing the Blue Ridge into now western North Carolina, they were met by twenty Indians carrying twenty baskets of the mulberries, and an enormous amount of them were eaten. Coming into what is now east Tennessee they entered a veritable land of milk and honey. There were hickory nut milk, *Hicoria alba,* and, believe it or not, honey, and calabash gourds, *Curcurbita texana,* of hickory nut oil, and bear fat, for cooking.

The hickory nuts were crushed and allowed to set and settle. The cream or oil that raised was skimmed off and used as oil for cooking, or as a spread like butter. In this Tennessee valley, they rested a month while the horses were permitted to graze in the good Blue Grass, *Poa pratensis,* or Red Top, *Agrostis alba.* Two centuries later the cattlemen were grazing herds in these valleys. There was plenty of corn, and cooking beans, *Phaseolus vulgaris,* that had grown on high vines.

August 30, 1540, leaving the Tennessee River they bore southwardly to the Coosa River in Alabama, where were found most excellent grapes. One man was lost who wandered away to search for possibly the original wild scuppernongs, *Muscadinia rotundifolia.*

Fall began to approach as Mobile Bay was neared, October 16th. Bread made from chestnuts, *Castanea pumila,* was eaten. Here occurred the bloody battle of Mavilla, the greatest battle of all time on this continent between white men and the Indians. All provisions were lost, and De Soto would not go on to Mobile Bay and receive supplies, but turned the army northward up the Tombigbee valley. Oil was had from the chestnuts, to mix with corn meal, which was captured with other supplies before winter quarters were established in now northern Mississippi.

Here were the Chicasaw plums, small and sour, *Prunus augustifolia,* the wild sweet potato, *Ipomoea pandurata,* and the sunflower seeds, *Helianthus gigantea,* which pounded into flour and mixed with cornmeal made a bread. Also there was an abundance of acorns, *Quercus virginiana* and *Quercus nigra,* which were crushed and the bitter elements washed away to make flour. Also there were many walnuts, *Juglans rupestris.*

Spring came again, the spring of 1541, and forth fared the Christians to plunder the Indian granaries of corn, on their march westward where they came upon and discovered the Mississippi River, Saturday, May 21, 1541, at about present Frior's Point, perhaps. After building boats and crossing, they marched northwest until they came to a "—plain upon which grew a plant so rank and big" that the horses could not break through. If this was the prairie bluestem, *Andropogon furcatus Muhl,* far later travellers had the same difficulty. Soon they arrived in a territory where there were no provisions but meat, as the Indians did not plant truck patches, on account of the buffaloes trampling them. Upon turning southward, they came into the rich river margins where there grew an abundance of provisions, and also salt was found, September 6th. Here they ate the Jerusalem artichoke, which is neither an artichoke, nor from Jerusalem, but a sunflower, *Helianthus tuberosus.*

Soon after visiting the "Hot streams" where were Indians gathered from many tribes, as do their white successors, they went into their third winter quarters in what is now Arkansas, where there was plenty of firewood and food: Persimmons, *Diospyros virginiana,* which dried made into a kind of bread; grapes, *Vitis cordifolia;* plums, *Prunus americana;* and a new winter drink if they liked, made by the Indians from fermented honey locust seed pods, *Gleditsia triacanthos.*

The warm spring of 1542 crept into those Ozark hills, and the farrowing sows had multiplied the hog crop into seven hundred head. These were auctioned off among the effects of the redoubtable leader, De Soto, after his death, on the west bank of the Mississippi River, May 21, 1542. These were the first swine to be fattened on good American corn, and mast.

The leadership now fell to Moscoso, and it was agreed by the chief men to try to march westward through what is now called Louisiana and Texas to reach Mexico. Accordingly, they set out, stopping long enough on the way to make salt, and finally arrived at the Red River, where was found much food among the Caddo Indians. Passing on into Texas, they heard reports of other Christians, and an Indian said, "They were travelling about near there." Perhaps this was the Coronado expe-

dition. After the cross timbers were passed, food and corn became more and more scarce, and it was decided to return to the Mississippi Valley where there was much corn, and go into winter camp. This was done, December 1542.

Again through the winter, they subsisted upon all the Indian food products of the Mississippi River valley, using the time to build boats in which to descend the river. A great Spring of 1543 flood detained them, and it was not until July 2nd that they started down the river on the last long, but successful, journey that took them into the Gulf of Mexico, where they skirted the coastline, and reached Panuco, Mexico on September 10, 1543.

Thus was tested for four years the original American diet.

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