

PEANUTS

By

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Introduction:—The peanut is perhaps our best known nut crop and combines in itself the desirable qualities of several well known farm crops. The portion above the ground makes hay superior to timothy and the equal of red clover; the underground portion a food more nutritious, acre for acre, than the best of our root crops; while at the same time, being a leguminous plant, it builds up the land on which it grows in the same way and to as great an extent as does the cowpea and velvet bean. The peanut is really not a true nut crop, but the so-called nuts are simply pods such as we find on the pea or bean which develop beneath the ground. Small yellow flowers appear at the joints where the leaves are attached, are pollinated, and the flower fades and leaves a peg-like appendage which soon lengthens and enters the ground where the pod develops. It may be interesting to note that a clover has recently been introduced into this country from Australia that has the same habit of maturing its seed beneath the ground and that when tried out in a small way in South Mississippi it has given promise of surpassing most of the other clovers.

With a growing season of from one hundred to one hundred and forty days the area of profitable production for this crop extends beyond that of cotton and includes practically all of the Southern states. It is a crop easily grown and especially well adapted to the sandy lands of South Mississippi as well as to the Coastal Plains soils of all the Southern States, being now grown in twelve of these states. As the boll weevil has spread over these states, the people have gone more and more into the production of peanuts, the production having increased from about 14,000,000 bushels in 1905 to about 53,000,000 bushels in 1917.

It is supposed to be of African origin and to have been introduced into the United States by the slave traders who used the nuts as a food for the negroes during their passage across the Atlantic. They were first introduced into Virginia and North Carolina where their culture was largely confined until the Civil War when the value of the crop was recognized by the soldiers of the two armies who scattered them widely over the country. They are now grown in more than thirty eight states and, as stated above, commercially in twelve of them.

Virginia and North Carolina were for a long time the leading states in their production, but more recent statistics show that Alabama, Georgia and Texas in the order named each outstrip the first two states in the production of peanuts. Mississippi and Louisiana come near the last, doubtless due to the fact that the best peanut soils of these two

states, the Coastal Plains soils, are yet so largely devoted to timber or so poorly developed after being so recently cut over. South Carolina comes practically in the class with Louisiana and Mississippi, but her Coastal Plains soils have been so valuable as producers of cotton, being, until recently, free from the boll weevil, that she could not afford to use such lands for any other crop than cotton.

Varieties: There seem to be two general types of peanuts, those that spread and develop pods all along the stem and those that grow more or less upright and have the pods clustering near the base of the plant. Representative varieties of the spreading type are the Virginia Runner, Virginia Bunch and North Carolina, the pods of which are large and used chiefly for human consumption. They are generally more discriminating in their soil requirements and when grown by us were much more apt to produce faulty pods. The bunch type is represented by the Spanish peanut and several other kinds that grow upright and develop the pods around the base of the plant. There are quite a number of varieties of the Spanish type, namely "White" and "Red" Spanish, "Large" and "Small" Spanish, "Jumbo" and "Improved" Spanish and possibly others. The Valencia and Tennessee Red are upright in their growth, have the pods clustered about the base, but these pods are much larger than the regular Spanish type.

The medium or true "White" Spanish is the one best suited to general production in our section and is the one most in demand on the markets. It produces a heavy yield of pods, is upright in its growth, and much less discriminating in its soil requirements than the running or prostrate kind. When grown at McNeill this white Spanish developed a much higher percentage of its pods, even on newly cleared lands having very few pods or faulty pods. The peanut has been grown in South Mississippi largely as a feed for hogs and for such use the Spanish type is decidedly the best kind. A succession of plantings should be made in order to extend the grazing period, and in our climate such plantings may extend from April 15 to July 1. These Spanish nuts sprout badly when left in the ground after maturity and should be promptly gathered or grazed off after reaching this stage. Some of the larger kinds, such as the Valencia, Tennessee Red and Red Spanish will stay longer in the ground without sprouting and thus increase the grazing value of the crop by extending the grazing period.

Soil Requirements—When grown for the confectioner or for roasting, peanuts demand a light sandy soil free from an excess of organic matter or from an excess of coloring matter of any kind, for the reason that the pods will partake of the color of the soil and fail to meet the demands of a discriminating trade. An ideal peanut soil should not only be physically as described above, but should have a fair percentage of lime so as to make it friable, easily crumbled and less inclined to

produce faulty pods. In the absence of a natural supply of lime, a top dressing of lime rock at the rate of 1000 pounds or more per acre will have a decidedly helpful tendency. The Spanish peanut, however, will grow successfully on almost any well drained sandy loam soil of this state, but even on such soils here lime has generally given an increase of yield though actually used on very few of our plantings of peanuts, and with present cost of lime, due to increased freight rates, we seriously doubt if increased yields will pay the cost of application.

Preparation of Land.—Land for peanuts should be prepared about the same as for cotton, which means that it should be flat broken to a medium depth and thoroughly pulverized with disc and smoothing harrows. A mistake, in our opinion, frequently made is in getting too few plants, especially of the Spanish type, to the acre. Therefore, we would prefer rows not wider than 36 inches and preferably, 30 inches, or as close as is convenient for good cultivation. After laying off the rows the fertilizer, if used, should be distributed in the drill and mixed with the soil and the nuts dropped by hand or machine and covered to a depth of from one to two inches, depending on the type of the soil, deeper on sandy than on stiff soils and still deeper if nuts are planted without shelling. The large podded nuts are usually shelled before planting and may be dropped by hand or by an ordinary corn planter, but the small Spanish nut is more often planted with the pod intact and we have always obtained earlier and better stands by soaking the pods over night and planting whole. This, too, may be done by hand or machine. In work done here these nuts have always been planted by hand, but on a visit to Andalusia, Ala., made several years ago, the writer found them using a Waters-Covington Peanut planter, manufactured by the Covington Manufacturing Co., Headland, Ala., that they claimed gave perfect satisfaction and was a very inexpensive machine.

The distance for planting peanuts in rows or drills is governed by the variety used, the larger and more spreading kinds requiring wider rows and greater distance in the drill than the smaller upright kind. For the Virginia runner and varieties of its type we would suggest rows three feet apart and a distance in the drill of at least fifteen inches; for the medium sized nut such as Valencia, a three foot row and a spacing of ten inches in drill; while for the small Spanish kind a row 30 inches wide and a distance not exceeding six inches will usually give the best yields. In planting without hulling we have often soaked the pods for more than 36 hours before planting and even up to 48 hours and have always gotten quicker and better germination.

On the average well drained soil of this section we have usually planted peanuts on a flat surface, covered with one or two furrows with bull tongue or cultivator, to be followed just before the plants appear above ground with smoothing harrow to knock off any surplus dirt and to kill young grass that may by this time have made its appearance.

The young peanut plant is very brittle and will not stand heavy broadcast harrowing after it appears above the ground.

Fertilizers.—While located at McNeill our station conducted a number of experiments with fertilizers under peanuts and these have led to the conclusion that acid phosphate alone on the soils here give the cheapest increase of crop. Lime has nearly always given an increase of crop and when freight rates are lower we would advise its general use on lands near enough the railroad to make the hauling and distribution reasonably cheap, but the quantity of lime used and the cost now of freighting, hauling and distributing would render its profitable use very doubtful.

The peanut being a leguminous crop, should not require a nitrogenous fertilizer and experience covering many years has gone to show that at least our newly cleared lands are not lacking in potash for many of our farm crops. The following figures giving results of work with fertilizers under peanuts in 1905 are typical of other fertilizer tests with this crop that have been made here, as may be seen by reference to work with peanuts reported in bulletins 79, 83, 87, and 94 of this station: no fertilizer, 1472 pounds; 50 lbs. nitrate of soda, 200 lbs. acid phosphate and 100 lbs. kainit, 1760 pounds; 200 lbs. acid phosphate and 100 lbs. kainit, 1792 pounds; 200 lbs. acid phosphate, 100 lbs. kainit and 1000 lbs. lime, 2016 lbs; 200 lbs. acid phosphate alone, 1760; 100 lbs. kainit alone, 1680 lbs. The above results were obtained on plats of one-sixteenth acre each and have been calculated up to an acre as a unit.

In other tests here with peanuts reverted phosphoric acid has given as good yields as the water soluble. This reverted phosphoric acid was made by mixing just enough lime to acid phosphate to render by slacking all its phosphorus insoluble in water, but soluble in a solution of ammonium citrate in the standard method of analyzing fertilizers. The yield of peanut hay has varied with the fertilizer applied, running from 1000 to 3000 pounds per acre. As a rule the more highly nitrogenous fertilizers give a slightly heavier yield of hay but not of pods. These fertilizers have generally been applied in the drills shortly before the nuts have been planted, and except where careful weighing has been necessary in plat work, an ordinary fertilizer distributor has been used for putting it out.

Cultivation.—The cultivation of the peanut does not differ materially from that given cotton or corn. It should commence even before the plants show above the ground so as to prevent the crusting of the ground above the nuts as well as to keep down weeds and grass. An ordinary weeder or section harrow either will answer the purpose and the cost will be very small. Every effort should be put forth to keep down grass, for when once started it is quite difficult to remove such

grass from the tender, spreading plants, and the cost of cleaning a foul field of peanuts may easily approach the value of the crop. After the young plants show above the ground weeds and grass should be kept down and a dust mulch maintained by frequent shallow cultivations with ordinary side harrow or cultivator. An ordinary heel sweep on Georgia stock will often do as good work in a field of peanuts as any implement that can be had. Of course these implements should never be run close enough to disturb the root development and care must be taken to send the fruit stems or pegs into the ground. The old practice of throwing dirt on top of the vines so as to get them to lie on the ground and allow the fruit stems to get beneath the surface not only is expensive and does no good but is positively injurious in many instances, according to the best authorities. It certainly does no good with the erect growing kinds that bunch their pods around a narrow space near the stem, but if practiced would make it impossible to cut such tops for hay and would thus destroy a considerable portion of the value of the crop.

Harvesting.—The true Spanish peanut, the variety that does best on the soils of this section, is, of all others, the most apt to sprout in the ground after reaching maturity and should, therefore, be harvested promptly when fully developed. If not harvested at maturity the leaves fall, the stems get weak and break easily, thus separating the nuts from the vines and making the operation of getting the nuts out of the soil much more expensive. Peanuts planted here in early spring would reach maturity near the first of September, at a time when showers are frequent so near the Coast as we are. If planted in June, these nuts should ripen near the middle of October when our weather is usually dry and conditions for saving a good quality of nuts and vines almost ideal. A crop of peanuts following one of oats may usually be harvested at the most opportune time and we have found the two crops make an excellent combination.

Our experience has been that the Spanish peanut, if harvested when just mature, may be pulled out of the ground by hand without previous loosening of the soil and that practically all the nuts will be removed. If these nuts do not come with the vine it may be necessary to loosen the soil and separate the clusters of nuts from the root system. For this there are special plows as well as special plow point to be attached to regular stocks, that may be had on the market. A simple and inexpensive type of peanut digger may be made by any blacksmith from a steel bar curved and sharpened and attached to a Georgia stock. Also an implement used to dig sweet potatoes, a middle burster with pronged mold boards, will do excellent work. In fact, the ordinary potato digger used by large growers in harvesting Irish potatoes can be used to perfection in harvesting peanuts. The large spreading varieties of peanuts are not so easily pulled out of the ground as

the upright cluster kind and one of the other of the methods of gging will generally have to be used.

When the weather is clear and dry we often pull up the vines, turn the nuts up to the sun, and leave them to cure for a few days without going to the trouble of stacking them carefully around a pole. After thus drying out, they are raked into windrows, stacked in small cocks and allowed to remain several days in the field where curing is continued, then they are hauled to barn, stacked away under shelter and the nuts picked from the vines or threshed later. When harvested in the fall, such a method is usually practicable but if weather conditions are not just right another method of harvesting should be used. By this, hands follow quickly behind the plow or other apparatus used for loosening the nuts, pick up the vines, shake off the dirt and leave them unplied for six or seven hours when several rows are thrown together and finally stacked for curing.

One of the best methods of curing them is to stack the vines with nuts attached around poles seven or eight feet high, placed securely in the ground and so distributed over the field as to accomodate the crop. A platform of old rails or brush is then made around each pole or pieces of plank nailed on to these poles at right angles to each other just above the ground, so as to keep the vines off the ground and give a free circulation of air under them. The peanuts are stacked so as to have the vines on the outside and the nuts next to the pole. It is necessary to occasionally put a vine around the pole so as to keep the stack from spreading. The stacks are then capped with a grass hay or corn fodder and left for about six weeks when the nuts should be dry enough to gather, which may be done in the field, or preferably, the crop hauled to the barn and the nuts picked off by hand or machine. In long operations and with good weather conditions the threshing may be done cheaper in the field.

At our station we have grown Spanish peanuts almost entirely and have seldom gathered the nuts in any quantity, letting the hogs do this after first cutting the vines for hay and frequently after letting the dairy cattle have the run of the field even before hogs are turned in. Even when they have been cured and separated from the vines we have never sold them on the regular markets and if they are to be sold on such markets, they should be cured in the stacks before being picked from the vines, as otherwise they are apt to shrivel and even mold. Where used only as feed for livestock no such care is necessary and in practice we have seldom gone to the trouble of stacking at all.

Yields.—The average yield of peanuts in the United States is around 36 bushels per acre, but it is easily possible on selected land and under the best growing conditions to multiply this average yield several times. In our opinion, based on personal experience, the greatest cause of low yields is too few plants to the acre, especially with the Spanish

type of peanut. If width of rows were not wider than 30 inches and plants an average of 5 inches or less in drill we feel sure that average yields would be almost doubled although other conditions might remain the same. At the McNeill Station our average yield of nuts from the Spanish variety was 1640 pounds per acre and of hay 2452 pounds, while a single result in weighing the large Virginia peanut gave 1792 pounds of nuts and 3520 pounds of hay per acre. The large peanut did not, however, prove a sure bearer in all seasons, there being times when more than half the pods would be faulty. As grown at McNeill a bushel of field run peanuts of the large "Virginia" type weighed 20 pounds and a bushel of the small or "Spanish" type 22 pounds but as sold on the average market a bushel of the large type should weigh 22 pounds and of the Spanish type from 28 to 30 pounds.

Peanuts as soil builders.—The peanut is a leguminous plant and has the power of getting its nitrogen from the air just as do the other common legumes of the section such as cowpeas, velvet beans, soy beans and lespedeza. But the fact remains that the soil building power of any of these legumes is lessened just as we remove more or less of the crop from the land and fail to return it as threshed hay or the manure from animals that have been fed on such hay. A practical farmer in Louisiana who has had wonderful success in building up a worn cotton soil with lespedeza found that soil improvement took place very slowly so long as he cut his lespedeza and did not return the straw. He grew this lespedeza for seed and after threshing began to haul the straw back to the land, when he found the rate of improvement quite remarkable, so much so that his results have been used for years throughout that state to illustrate the power of lespedeza to build the soil and yet return a profit in so doing.

As commonly harvested, practically all of the peanut plant is taken from the land and as usually handled none of it returned as straw or manure from cattle fed on such straw or hay. Much of the soil building power of the crop is in the vines and nuts, but a considerable quantity would be left in the roots if, with the proper implement, these roots were severed just beneath the cluster of pods and left in the soil. Even then, in practice, the peanut crop would hardly approach the velvet bean as a soil builder because the latter grows in such a way as to make it practically impossible to remove more than a small percent of its accumulated plant food.

Improved methods of handling peanuts.—So long as the growth of peanuts was confined to the poorer sections of Virginia and North Carolina and only the large type of nuts produced, the handling of them was done entirely by hand labor. But when the area of profitable production spread to 12 or more states the necessity for improved machinery for such work began to make itself felt. One of the slowest and

most expensive operations connected with the commercial production of the crop is the separation of the nuts from the vines and this is especially true with the small Spanish kind so universally grown in this section.

There are two types of picking machines now on the market and the best of these have a capacity of picking 250 bushels of nuts per day. We believe the Benthall peanut picker is usually considered the best machine for the separation of nuts from vines with least breakage of pods. In recent years special concaves may be purchased for ordinary threshing machines which will do good work. In large field operations the peanuts are harvested and piled around the stakes as described elsewhere and after curing for about six weeks the picking machine or thresher may be set at convenient places in the field when the entire stacks are taken up, loaded on low swung wagons and hauled directly to the picker and as they are unloaded the pole is removed and thrown aside and the peanuts run through the machine. If peanuts are to be grown commercially a machine of some kind is absolutely necessary but a single machine could and should be used by an entire community so as to extend the period of service as much as possible. This peanut picker or thresher is the only expensive machine necessary in the commercial growing of the crop as the planters, if used, are little if any more expensive than the average planter for cotton or corn. In fact, the operation of dropping the nuts by hand and covering as you would corn is reasonably economical. The weeder that can be used so satisfactorily in cultivating the crop before and after the plants appear above the ground is an inexpensive implement and may be used in almost as many farm operations as can the section or smoothing harrow. While cultivators of various kinds may facilitate the cultivation of the crop to a degree, the old Georgia stock and heel sweep may do almost as effective work. And in harvesting, while a special potato digger may be effectively used, if available, the cost of doing the work will be little if any more if only the crude curved steel bar sharpened and attached to Georgia stock is used.

Uses.—Peanuts are used in a great many ways. Their sale as parched nuts will reach an enormous total, for they are sold on almost every corner in cities and towns; by the fruit and candy shops everywhere; while the small boy cries them on all occasions where more than two or three persons are gathered together. The nuts enter largely into the recipes of the confectioner and when parched and salted make a cheap substitute for the almond. Peanut butter has in recent years become a very common article of diet, being sold at almost every cross road store. Peanut butter may be easily made by the average housewife from recipes furnished by the county Home Economics Agent and this one article alone ought to be sufficient incentive for the growing

of peanuts by every family.

The peanut has a very high percentage of oil, 40 per cent of the shelled nuts being its available oil content and as 94 per cent of the whole nut is represented by the kernel, it may easily be seen that a bushel of the Spanish nuts weighing 30 pounds will furnish more than eleven pounds of oil. This oil is largely used as a substitute for olive oil, the cheaper grades of it being used in the manufacture of fancy soaps. Up to fifteen years ago the manufacture of oil from peanuts was confined almost entirely to the region around Marseilles, France, largely from nuts grown in Africa, India and Spain, but with the coming of the boll weevil into the South the culture of peanuts has extended to the point where oil is manufactured from them in this country. For the finer grades of oil the nuts must be shelled and hand picked and when so handled the resultant cake makes a superior feed for hogs and can be fed to them without the bad results frequently attending the feeding of cottonseed meal over long periods of time. Many of the nuts are crushed and pressed without removing the hulls and the resultant oil and cake, while not equal in quality to that from hulled nuts, have high commercial values, the cake being equal or superior in value to cottonseed meal and very valuable as a feed for all livestock.

As a natural stock food, the peanut ranks very high, the vines making hay superior to timothy and equal to red clover, while the nuts are the cheapest producers of pork, acre for acre, in all the list of hog crops. In bulletin No. 143 of the Alabama Experiment Station which gives in detail the results of three years work in producing pork from all kinds and combinations of feeds, the authors have the following to say about the peanut: "As a whole the peanut pasture was found to be more useful than any other pasture tried." The same station found that in feeding grain with the several hog crops the average amount of grain required in connection with the pasture to produce a pound of pork was: 1.77 pounds with peanuts; 2.3 pounds with chufas; 2.68 lbs with rape; 3.07 pounds with cowpeas; 3.13 pounds with sweet potatoes; and 3.70 pounds with sorghum. Similar tests at the Arkansas Station and reported in bulletin No. 73 show that one-fourth of an acre planted to peanuts produced 313 pounds of pork as compared to 109 pounds from a plat of the same size planted to corn. Peanuts make a highly nitrogenous feed, not properly balanced when fed alone but forming an ideal combination when fed with corn.

The following tables taken from Baileys Cyclopedia of American Agriculture show the feeding value of peanut hay as compared to other standard hays and the composition of the several parts of the peanut plant with reference both to its feeding and fertilizing values.

Feeding Value of Peanut Hay as Compared with Hay of Other Crops

	DRY MATTER					
	Moisture	Protein	Fats	Carbohy- drates	Crude Fiber	Crude Ash
	per cent	per cent	per cent	per cent	per cent	per cent
Peanut hay ..	7.83	11.75	1.84	46.95	22.11	17.04
Peanut vine	6.25	13.48	15.06	36.28	29.16	6.02
Clover hay	14.30	12.84	2.11	48.31	29.27	7.47
Timothy hay	13.50	7.17	1.97	52.94	33.41	4.51
Cowpea hay	10.29	19.72	4.04	45.15	21.99	9.10
Alfalfa	6.95	16.48	2.02	42.62	31.38	7.49

Average Composition of the Food Constituents in Different Parts of the Peanut Plant.

PEANUT	IN WATER-FREE SUBSTANCE						
	Wa- ter	Ash	Pro- tein	Fiber	Nitro gen free ex- tract	Fat	Nitro gen
	per cent	per cent	per cent	per cent	per cent	per cent	per cent
Kernels	7.85	2.77	29.47	4.29	14.27	49.20	4.67
Vines cut before blooming..	31.20	10.64	12.63	22.32	48.34	6.07	2.02
Vines cut when fully ripe....	31.91	12.08	10.81	32.28	39.81	5.02	1.73
Hay	7.83	17.04	11.75	22.11	46.95	1.84	1.88
Vines without leaves		8.80	6.25	32.95	49.49	2.50	1.00
Leaves		10.90	10.00	21.51	54.09	3.50	1.60
Roots	28.74	9.58	7.63	48.59	31.00	3.20	1.22
Hulls	12.74	3.39	7.22	67.29	19.42	2.68	1.77
Skin (inner coat of kernel)..	10.80	5.72	25.11	20.96	26.89	21.52	4.00
Meal	10.74	5.48	52.49	5.93	27.26	8.84	8.40

Fertilizing Constituents in Different Parts of the Peanut Plant

	IN THE FRESH OR AIR-DRY SUBSTANCE					
	Water	Nitro- gen	Phos. Acid	Potash	Lime	Total Ash
	per cent	per cent	per cent	per cent	per cent	per cent
Peanut kernels	6.30	4.51	1.24	1.27	0.13	3.20
Peanut vines (cured)	7.83	1.76	0.29	0.98	2.08	15.70
Peanut hulls	10.60	1.14	0.17	0.95	0.81	3.00
Peanut cake (meal)	10.40	7.56	1.31	1.50	0.16	3.97

Remarks.—A study of the foregoing tables cannot fail to impress one with the marked possibilities of such a crop to Southern agriculture, especially to a section such as we have in South Mississippi where the soils are ideal for growing them. Even though, as frequently handled with reference to removing the entire crop from the land, we greatly destroy its soil building powers, still the very fact that the crop itself re-

quires no nitrogen in a fertilizer to be used under it is a decided advantage in its favor. Other non-leguminous crops must be fertilized here with nitrogenous fertilizers except when following legumes and this nitrogen adds greatly to the cost of such fertilizers. The fact is that with all our legumes, except possibly the velvet bean, we remove the bulk of their soil building properties when we use fruit and stalk as with the cowpea and soy bean while actually we puzzle our wits to find a way to save the velvet bean vine and thus remove it from the land.

As we see the situation in South Mississippi, one of our most promising lines of agricultural endeavor is the production of feeder hogs to be sold when less than one year old to feeders in other sections where grains for finishing may be grown cheaper than we can grow them. It is conceded by all who have tried growing hogs in the South that the peanut will furnish the cheapest gains of all crops tried and if all our farmers were to grow as many hogs as their circumstances would permit; would graze these hogs on available crops, on peanuts to as great an extent as seasons would warrant, they would get the cheapest gains possible from young pigs and get rid of them at a time when more and more grain would be required to produce a pound of pork, and also at a time when they must be fed on corn, a crop we cannot produce in competition with many other sections.

Nature gives every section certain advantages and disadvantages. It has given to South Mississippi a sandy loam soil with almost ideal physical properties, but lacking in at least two chemical elements necessary to the production of a crop like corn. It is true that we can supply this lacking plant food and make such soils, as they have been made, produce world beating corn crops, but our observation has been that the average crop of corn will justify only a small outlay for fertilizers. Too, the corn weevil, so far south as we are, will nearly always destroy a large part of the value of any corn stored here and the cost of buying carbon bisulphide to combat them, with the care necessary to make its use effective, is a handicap that too few of us consider. Granting that the peanut will average only 36 bushels to the acre, and this is about twice the state's average of corn, it will produce practically twice as much pork per acre as will the corn while the feeding value of the vines for hogs or cattle will materially increase the acreage value whether cut for hay or grazed off as pasture. If consumed entirely on the land where grown and the fertilizing elements left in the manure on the land itself, some 116 pounds of nitrogen will be left in the soil as may easily be calculated from the foregoing tables. Too, the fertilizer necessary to produce the average crop of peanuts need contain no nitrogen while that for the average corn crop must carry a relatively large amount.

The physical makeup of South Mississippi soils fit them especially

for the production of peanuts and such soils, the world over, are the ones that have led in the production of peanuts. Corn does best on stiffer lands; whether because of this stiffness or the accompanying increase in plant food elements, it is not necessary to say. It is sufficient to say that peanuts are better suited to our conditions than corn and we ought, at least to a certain extent, substitute them for it, especially in-so-far as we may attempt to grow crops with which to feed hogs.