

CULTURE OF SOY BEAN IN COTTON STATES



MATURE PLANT OF THE SOY BEAN.

(Prepared by the United States Department of Agriculture.)

The soy bean, a legume introduced into this country from Asia, may be grown throughout the humid and semihumid sections of the South and in the southern portion of the corn belt, and thrives especially well in the cotton-growing regions. Because of this latter fact it offers an excellent opportunity to the cotton planter for adjusting his farm plans to offset the damage to cotton inflicted by the boll weevil.

On the other hand, since a valuable oil may be pressed from the beans in cottonseed oil mills, and since boll weevil activities tend to lessen cottonseed production, the growing of soy beans in the South should greatly interest the owners of oil mills. The production of soy beans in considerable quantities may, in fact, be needed in some seasons to keep the expensive equipment of the mills operating profitably.

Importance of Bean.
The bean already occupies a place of unusual economic importance in Asia and especially as a material from which foodstuffs, cattle feed, fertilizer, and oil suitable for a variety of uses may be manufactured, should become increasingly important in the United States to both farmers and manufacturers.

From the farmer's point of view the existence of the many oil mills in the South and the probability that by furnishing a demand for soy beans these concerns will make the legume an important cash crop should greatly facilitate the introduction of the new product on a commercial scale. Soy beans should be of additional interest to farmers, since, as in the case of other legumes, their culture improves the soil. If a sustained demand for them can be built up, therefore, soy beans can be introduced advantageously into a rotation with cotton, furnishing at the same time a second important cash product and a soil-improving crop.

Development of Industry.
The recognition of the possibilities of bringing about the production of soy beans on a commercial basis in the South is not based only on the economic importance of the crop in Asia, where its production on a large scale has been established for many years, or on the established market for the beans practically throughout Europe. Soy beans have been grown for forage in this country for many years, and their adaptability to a wide range of climatic and soil conditions has become fully demonstrated. In recent years the crop has been grown to an increasing extent for its seeds in eastern North Carolina. A large production of the beans in this section in 1915, together with the occurrence of a cottonseed shortage, led to the experimental pressing of a considerable quantity of beans by local oil mills. These experiments were entirely satisfactory and the mills participating in them are now taking an active part in the development of this new industry with American-grown beans. Oil mills on the Pacific coast have been operating for several years with soy beans imported from Manchuria and have found a ready sale in this region for the oil, cake, and other products.

Culture of Soy Bean.
The soy bean can be grown successfully on nearly all types of soil and has about the same range of climatic adaptation as varieties of corn. The growing and handling of the beans are accomplished almost entirely by machinery in this country, the ordinary farm equipment meeting all the requirements of the crop. In large bean-growing districts special harvesters for gathering the seed in the field are used quite successfully. The cost of production varies from \$7.50 to \$12 per acre, depending on the methods

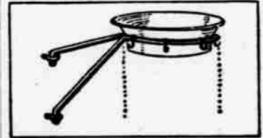
employed in growing and handling the crop. The market price per bushel of seed for sowing purposes varies in different sections, ranging from \$1 in large seed producing sections of the South to \$2 and \$3 per bushel in the central and middle Atlantic states. Yields of seed to the acre in various sections of the United States range from about 15 bushels of 60 pounds each in the northern states to about 40 bushels in the northern half of the Cotton Belt. The average yield in eastern North Carolina is about 25 bushels, although many fields produce 35 bushel or more to the acre.

Climate plays an important part in yields and the oil content of the seed. Considerable differences occur in the oil content of soy beans grown in different localities. The same variety grown in Mississippi and Ohio, for example, yielded respectively 25.4 per cent and 17.5 per cent of oil. The soy bean lends itself readily to improvement by breeding, and experiments indicate the possibility of securing varieties of high oil content by selection.

CONVENIENT AS BAG HOLDER

Device Made Out of Bottom of Large Tin Pan, Mounted on Iron Rod, is Handy in Granary.

There are various kinds of devices to be made quickly for filling bags when one has to do it alone, but I think it wise to have a contrivance in your granary all of the time, says



A Bag Filler.

a writer in an exchange. I had a blacksmith make me one that works very well. I cut the bottom out of a large tin pan and had this mounted on an iron rod as shown in the drawing. Small hooks are placed around this. The pan is hung on these hooks and the grain shoveled in at the top.

GOOD VENTILATION FOR BARN

No Structure Should Be Built Without Care Being Given to Fresh Air Supply for Stock.

Ventilation is as important a matter in the barn as in the house, and no barn should be built without care being given to supplying fresh air for the stock. Some sort of a vent should be placed at the top of any closely built barn, as the foul air will otherwise hang under the roof and eventually make all the air in the barn bad. The cool, pure air will find its way in if there is a way for the warmer foul air to escape.

STANDARD MACHINE IS BEST

Farmer is Well Protected if Anything Goes Wrong and Repairs Are Easily Made.

It is worth a percentage on any purchase of farm machinery to get some reliable and established firm back of your purchase. Not only are you much better protected if anything goes wrong, but there is seldom a piece of machinery that does not need repairs in the course of time, and the man who has a standard machine of any sort will be thankful when he finds he needs some new parts.

WHAT A JEWELRY FIRM DID

They Invested Some of Their Spare Money in Canadian Lands.

S. Joseph & Sons, of Des Moines, Iowa, are looked upon as being shrewd, careful business men. Having some spare money on hand, and looking for a suitable investment, they decided to purchase Canadian lands, and farm it. With the assistance of the Canadian Government Agent, at Des Moines, Iowa, they made selection near Champion, Alberta. They put 240 acres of land in wheat, and in writing to Mr. Hewitt, the Canadian Government Agent at Des Moines, one of the members of the firm says:

"I have much pleasure in advising you that on our farm five miles east of Champion, in the Province of Alberta, Canada, this year (1916 we harvested and threshed 10,900 bushels of wheat from 240 acres, this being an average of 44 bushels and 10 pounds to the acre. A considerable portion of the wheat was No. 1 Northern, worth at Champion approximately \$1.85 per bushel, making a total return of \$19,010, or an average of \$81.70 per acre gross yields. Needless to say, we are extremely well pleased with our lands."

It might not be uninteresting to read the report of C. A. Wright of Milo, Iowa, who bought 160 acres at Champion, Alberta, for \$3,300 in December, 1915. He stubbled in the whole lot of it, and threshed 4,487 bushels Grade No. 2 Northern.

Mr. Wright, being a thorough business man, gives the cost of work, and the amount realized. These figures show that after paying for his land and cost of operation he had \$2,472.67 left.

4,487 bushels, worth \$1.85 at Champion	\$8,302.85
Threshing bill, 11c per bushel	\$493.57
Seed at 95c	144.00
Drilling	100.00
Cutting	100.00
Twine	50.00
Shocking	40.00
Hauling to town, 3c	134.61
Total cost	\$1,182.18
Cost of land	\$3,300.00
	\$4,482.18
	\$4,482.18

Net profit after paying for farm and all cost of operation \$2,472.67
—Advertisement—

Lived in One Room 82 Years.
Croydon, England, has lost by death Croydton, England, has lost by death a trader who, in an interesting way, carried on the trading traditions of the past. He was Robert Brain, who died at eighty-five years old in a room over the little old-fashioned shop in which he had lived for 82 years. Mr. Brain was reputed to be the largest individual ratepayer in the borough, paying the corporation about £800 a year.—London Chronicle.

BILIOUS, HEADACHY, SICK "CASCARETS"

Gently cleanse your liver and sluggish bowels while you sleep.

Get a 10-cent box. Sick headache, biliousness, dizziness, coated tongue, foul taste and foul breath—always trace them to torpid liver; delayed, fermenting food in the bowels or sour, gassy stomach. Poisonous matter clogged in the intestines, instead of being cast out of the system is re-absorbed into the blood. When this poison reaches the delicate brain tissue it causes constipation and that dull, throbbing, sickening headache.

Cascarets immediately cleanse the stomach, remove the sour, undigested food and foul gases, take the excess bile from the liver and carry out all the constipated waste matter and poisons in the bowels.

A Cascaret to-night will surely straighten you out by morning. They work while you sleep—a 10-cent box from your druggist means your head clear, stomach sweet and your liver and bowels regular for months. Adv.

Sure Enough.
"The doctor says I'm eating too much sweet stuff. Says sugar makes you lazy. Think it does?"
"Loaf sugar might."

CUTICURA KILLS DANDRUFF

The Cause of Dry, Thin and Falling Hair and Does It Quickly—Trial Free.

Anoint spots of dandruff, itching and irritation with Cuticura Ointment. Follow at once by a hot shampoo with Cuticura Soap. If a man, and next morning if a woman. When Dandruff goes the hair comes. Use Cuticura Soap daily for the toilet.

Free sample each by mail with Book. Address postcard, Cuticura, Dept. L, Boston. Sold everywhere.—Adv.

Man Who Knows.
"The doctor says I am working too hard."
"I'd put more faith in that diagnosis if it came from your boss."

There is a Catholic daily newspaper published in Tientsin, China.

THE KITCHEN CABINET

Since trifles form the sum of human things, And half our misery from trifles springs, Oh! let the ungentle spirit learn from thence A small unkindness is a great offense. —Hannah More.

SOUPS WITHOUT MEAT.

A light soup taken at the beginning of the meal stimulates the stomach and prepares it for the heavier food which is to follow. Clear, stimulating beef soups are for this reason the usual dinner soup. When a soup is to be followed by a light course the cream soups are the best, as they contain more nourishment and are especially good for aged people or small children.

Cream of Potato Soup.—This is a good substantial standby which is always welcome. Pare three good sized potatoes, cover with boiling water and boil five minutes, then drain and add fresh boiling water, a slice of onion, a half cupful of celery, finely cut; a bay leaf and three dashes of cayenne pepper; cover and cook until the potatoes are tender, then press the whole through a colander. Put one quart of milk into a double boiler, add two tablespoonfuls of butter and two of flour, cooked together until well blended, cook in the milk until smooth and creamy, then add the potato; cook for five minutes, then strain through a fine sieve, reheat and serve. Sweet potato, Hubbard squash, or pumpkin may be used in place of potato in this soup.

Bisque of Turnip.—Brown two tablespoonfuls of onion in a tablespoonful of butter, then add a small carrot, chopped fine, and two cupfuls of grated turnip or rutabaga, cover the saucepan and cook slowly on the back of the stove for 20 minutes. Put a quart of milk into a double boiler, add two tablespoonfuls of flour, mixed with a little cold milk, and cook five minutes; add the turnip, a teaspoonful of onion, a dash of tabasco and a level teaspoonful of salt; cook ten minutes; add two tablespoonfuls of butter, strain through a fine sieve and serve with squares of buttered toast.

Mock Oyster Soup.—Cook 12 roots of salsify, after scraping and slicing; when tender add a half cupful of codfish, a quart of milk, salt, pepper to taste, and just before serving add two tablespoonfuls of butter. Serve with oyster crackers.

Vegetable Soup.—Wash and scrape one-half cupful of celery in slices, add one-half cupful of carrot cubes, two onions, thinly sliced, and one-third of a cupful of butter. Cook ten minutes, stirring constantly; add three-fourths of a cupful of stale bread crumbs, four cupfuls of boiling water. Cook until the vegetables are tender; add two cupfuls of hot milk and two tablespoonfuls of finely chopped parsley. Season with salt and pepper.

May we have the wit to discover what is true and the fortitude to practice what is good.

OPENING CHESTNUT BUR.

The chestnut with its own delicacy of flavor is a great favorite everywhere it is to be obtained, and countless are the ways in which it may appear to give fresh delight to the palate.

Cream of Chestnut Soup.—Remove the outer shell from the nut and cover with boiling water; as the water cools slip off the brown skin from the nuts. Cook a quart of the blanched meats in sufficient water to cover until quite tender; add, while cooking, one small onion, three stalks of celery, a small blade of mace and a bay leaf. When the nuts are tender mash them through a pure sieve; return to the fire, add two quarts of white stock, a teaspoonful of salt, half a teaspoonful of paprika and a pint of hot milk. When the soup boils, draw it back on the stove and add two beaten egg yolks, mixed with a half cupful of sweet cream. Have ready in the tureen a tablespoonful of finely minced chervil; pour in the hot soup and serve at once.

Chestnuts are excellent simply cooked until tender and served in a rich white sauce, or mashed with butter, salt, and pepper and served as a vegetable they are especially appetizing.

Braised sprouts and chestnuts are a favored combination. Cook the sprouts until tender, add the nuts, roasted until tender, and serve in a thick cream sauce. Sprouts and chestnuts served with French dressing makes a nice salad to serve with game.

Chestnuts with lentils as a vegetable or as a soup is another good combination.

Chestnut croquettes are a delicacy not largely enjoyed. Serve with lemon quarters and parsley.

Chestnut Entree.—Mash a pound of roasted chestnuts to a paste; add half a cupful of thick, sweet cream, a teaspoonful of chopped parsley, and two well-beaten eggs; pour into buttered double cups and set in a pan of hot

water to bake in the oven 25 minutes. Remove from the molds and serve with a cream sauce or a tomato sauce. Cooked chestnuts served in a rich lemon syrup are delicious served with ice cream.

CHOICE RECIPES.

Carrots are such a wholesome vegetable that they should be found more often and in greater variety upon our tables.

Mint-Glazed Carrots.—Wash and scrape three carrots and cut in quarters in slices. Parboil for ten minutes, drain and put into saucepan with one-third of a cupful each of sugar and butter and a tablespoonful of chopped mint leaves. Cook slowly until glazed and perfectly tender. Serve hot, and as a border surrounding a mound of green peas.

Rice Omelet.—One cupful of cold, boiled rice, one cupful of warm milk, one tablespoonful of melted butter, one teaspoonful of salt, one-eighth of a teaspoonful of pepper, three well beaten eggs. Melt one tablespoonful of butter in a hot frying pan and pour in the mixture. Bake in a hot oven; fold over once and serve on a hot platter.

Alberta Apples.—Pare and core nine medium-sized firm apples. Prepare a sirup by cooking two cupfuls of water with two cupfuls of sugar, adding four whole cloves. Cook the apples in the sirup until they begin to soften, then remove to a pudding dish. The sirup that remains will be thick apple jelly when cool. Into it cut a few stewed prunes and chopped pecan meats. Fill the centers of the apples with the fruit mixture and top each with a spoonful of whipped cream and half a pecan meat. The filling may be varied with other fruits.

Nougatine Cake.—Make a fine light butter cake and bake in a square shallow tin, having it about three-quarters of an inch thick when done. Cut this into squares and cover with a soft butter frosting filled with minced and browned almonds ground fine. Chocolate may be used in the frosting if desired.

Banana Tapioca.—Soak three tablespoonfuls of tapioca overnight. In the morning add sufficient cold milk, a little salt and sugar to taste. Boil until the tapioca is clear, then stir in the well-beaten yolks of two eggs; cook for a moment and remove from the fire. Whip the whites of the eggs very stiff; fold these into the pudding, and when cool pour over sliced bananas.

Blessed is he who has found his work. Let him ask no other blessedness. He has a work, a life purpose, he has found it and will foster it. —T. Carylla.

THINGS FOR LITTLE PEOPLE.

Grated carrots seasoned with salt and cream, covered with buttered crumbs and baked in the oven until the carrots are well cooked. This dish may be served in individual ramekins which is pleasing to a child.

Bananas are much more wholesome when baked than served uncooked. Peel them, dip in lemon juice to cover well, roll in crumbs and bake with bits of butter on each banana. They may be cut in halves lengthwise; sugar, butter and lemon juice added and baked, basting often with the liquid in the pan. About twenty minutes is sufficient time to make them well. They may be served as a garnish to broil steak or simply with whipped cream as a dessert.

Custards.—Soft custard made by using two eggs, a pint of milk and four tablespoonfuls of sugar, with a pinch of salt, and a light grating of nutmeg. If placed in small custard cups, set in water, they will bake quickly and well.

Glazed Sweet Potatoes.—Wash some sweet potatoes and boil 15 minutes in salted water, then remove the skins, cut in halves lengthwise and place in a buttered pan. Make a sirup of half a cupful of sugar and three tablespoonfuls of butter, boiled three minutes, add one tablespoonful of butter and brush the potatoes well with sirup, basting with the remaining sirup while they are browning. Keep the sirup on top of the potatoes.

There is no more wholesome dish for growing children than baked apples. They may be varied by stuffing them with raisins, marshmallows or cinnamon and sugar and lemon juice, basting the apples while baking with the sirup. Serve either hot or cold with top milk or cream.

Oatmeal should be cooked at least three hours before it is good food for young or old. Serve oatmeal with top milk.

Egg Lemonade.—Beat one egg, stir in two tablespoonfuls of lemon juice and beat again. Add two tablespoonfuls of sugar, mix well, add one cupful of water and serve cold.

Nellie Maxwell

DO YOU GET UP WITH A LAME BACK?

Have You Rheumatism, Kidney, Liver or Bladder Trouble?

Pain or dull ache in the back is often evidence of kidney trouble. It is Nature's timely warning to show you that the track of health is not clear.

Danger Signals.
If these danger signals are unheeded more serious results may be expected; kidney trouble in its worst form may steal upon you.

Thousands of people have testified that the mild and immediate effect of Swamp-Root, the great kidney, liver and bladder remedy, is soon realized—that it stands the highest for its remarkable curative effect in the most distressing cases. If you need a medicine, you should have the best.

Lame Back.
Lame back is only one of many symptoms of kidney trouble. Other symptoms showing that you may need Swamp-Root are, being subject to embarrassing and frequent bladder troubles day and night.

SPECIAL NOTE.—You may obtain a sample size bottle of Swamp-Root by enclosing ten cents to Dr. Kilmer & Co., Binghamton, N. Y. This gives you the opportunity to prove the remarkable merit of this medicine. They will also send you a book of valuable information, containing many of the thousands of grateful letters received from men and women who say they found Swamp-Root to be just the remedy needed in kidney, liver and bladder troubles. The value and success of Swamp-Root are so well known that our readers are advised to send for a sample size bottle. Address Dr. Kilmer & Co., Binghamton, N. Y. When writing be sure and mention this paper.

Innocent Recreation.

Father had demanded a heart-to-heart talk with his only son. "I am told that you are given to gambling," he said sternly. "I admit it," the son acknowledged, "but only for small stakes."

"Oh, as long as it is for something to eat I don't mind," the father said.

A Logical Conclusion.

"Did you really call this gentleman an old fool last night?" said the judge severely. The prisoner tried hard to collect his thoughts. "The more I look at him the more likely it seems that I did," he replied.

A DELICIOUS DINNER

Break a quarter package of Skinner's Macaroni into boiling water, boil ten or twelve minutes, drain and blanch. Take equal parts of cold chicken, boiled Macaroni and tomato sauce; put in layers in a shallow dish and cover with buttered crumbs. Bake until brown. Just try this one. Skinner's Macaroni can be secured at any good grocery store.—Adv.

Not Served There.

The applicant for cook in a story told by the Ladies' Home Journal, was untidy and insolent in appearance.

"Don't hire her," whispered Jones to his wife; "Don't like her looks." "But," remonstrated his wife, "just consider the reputation for cooking she bears."

"That doesn't matter," said Jones testily; "we don't want any she-bears cooked; we don't like them."

His Suspicion.

"Do you know why the bridegroom's attendant at the wedding is called the 'best man'?"

"I did not know before I was married," replied skimp little Mr. Meek, "but very soon afterward I began to suspect."—Judge.

Important to Mothers

Examine carefully every bottle of CASTORIA, that famous old remedy for infants and children, and see that it bears the signature of *Dr. J. C. Fletch* in Use for Over 30 Years. Children Cry for Fletcher's Castoria

Poor Fellow Had to Walk.

"Tell me of your early educational hardships."

"Well, I lived seven blocks from a Carnegie library, and we had no automobile."—Louisville Courier-Journal.

FALLING HAIR MEANS DANDRUFF IS ACTIVE

Save Your Hair! Get a 25 Cent Bottle of Danderine Right Now—Also Stops Itching Scalp.

Thin, brittle, colorless and scraggy hair is mute evidence of a neglected scalp; of dandruff—that awful scurf. There is nothing so destructive to the hair as dandruff. It robs the hair of its luster, its strength and its very life; eventually producing a feverishness and itching of the scalp, which if not remedied causes the hair roots to shrink, loosen and die—then the hair falls out fast. A little Danderine tonight—now—any time—will surely save your hair.

Get a 25 cent bottle of Knowlton's Danderine from any store, and after the first application your hair will take on that life, luster and luxuriance which is so beautiful. It will become wavy and fluffy and have the appearance of abundance; an incomparable gloss and softness, but what will please you most will be after just a few weeks' use, when you will actually see a lot of fine, downy hair—new hair—growing all over the scalp. Adv.

It's easy for a millionaire philosopher to tell a young man how to live on \$5 a week and put money in the bank.

An automobile factory is to be established in Cork, Ireland.

night, irritation, sediment, etc. Lack of control, smarting, uric acid, dizziness, indigestion, sleeplessness, nervousness, sometimes the heart acts badly, rheumatism, bloating, lack of ambition, may be loss of flesh, shallow complexion.

Prevalency of Kidney Disease.

Most people do not realize the alarming increase and remarkable prevalence of kidney disease. While kidney disorders are among the most common diseases that prevail, they are sometimes the last recognized by patients, who very often content themselves with doctoring the effects, while the original disease may constantly undermine the system.

Regular fifty-cent and one-dollar size bottles at all drug stores. Don't make any mistake, but remember the name, Dr. Kilmer's Swamp-Root, and the address, Binghamton, N. Y., which you will find on every bottle.

Innocent Recreation.
Willis—What system do these military airplanes work on?
Gillis—One person runs the machine, and the other is just an observer, but both of them fight.
Willis—I see; just like being married.

INDIGESTION, GAS OR SICK STOMACH

Time it! Pape's Diapepsin ends all Stomach misery in five minutes.

Do some foods you eat hit back—taste good, but work badly; ferment into stubborn lumps and cause a sick, sour, gassy stomach? Now, Mr. or Mrs. Dyspeptic, jot this down: Pape's Diapepsin digests everything, leaving nothing to sour and upset you. There never was anything so safely quick, so certainly effective. No difference how badly your stomach is disordered you will get happy relief in five minutes, but what pleases you most is that it strengthens and regulates your stomach so you can eat your favorite foods without fear.

You feel different as soon as "Pape's Diapepsin" comes in contact with the stomach—distress just vanishes—your stomach gets sweet, no gases, no belching, no eructations of undigested food. Go now, make the best investment you ever made, by getting a large fifty-cent case of Pape's Diapepsin from any store. You realize in five minutes how needless it is to suffer from indigestion, dyspepsia or bad stomach. Adv.

Some men are like silver-plated knives—they look bright but are often dull.

Ten smiles for a nickel. Always buy Red Cross Bag Blue; have beautiful, clear white clothes. Adv.

Never dust electric globes while unlighted. The static electricity generated will break the filaments.



Farmer—Then city folks must be know if there's a bath in the house. What'll I tell 'em?
His Wife—"Tell 'em if they need a bath, they'd better take it where they come."
Take a bath of course, and every three hours while awake take a dose of

Boschee's German Syrup

It will quiet your cough, soothe the inflammation of a sore throat and lungs, stop the irritation in the bronchial tubes, insuring a good night's rest, free and easy expectoration in the morning. That old time-tested remedy which for more than half a century has brought relief and comfort to countless thousands all over the civilized world. 25c and 75c at druggists and dealers everywhere.

Your Liver is Clogged Up

That's Why You're Tired—Out of Sorts—Have No Appetite.

CARTER'S LITTLE LIVER PILLS will put you right in a few days. They do their duty. Cure Constipation. Biliousness, Indigestion and Sick Headache. SMALL PILL, SMALL DOSE, SMALL PRICE. Genuine must bear Signature

Wheatwood

DIAMONDS and ARTIST JEWELRY MANUFACTURERS **JOS. I. SCHWARTZ** 1015 & 1017, Denver, Colo.

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