

OKLAHOMA  
AGRICULTURAL AND MECHANICAL COLLEGE  
STILLWATER, OKLAHOMA

EXTENSION DIVISION

IN COOPERATION WITH

UNITED STATES DEPARTMENT OF AGRICULTURE

W. D. BENTLEY, DIRECTOR OF EXTENSION AND STATE AGENT

LESSON VIII

**COTTONSEED FLOUR**

BY EDITH ALLEN

1—REFERENCES

Bulletin No. 128, "Cottonseed Meal as Human Food", Texas A. and M. College, College Station, Texas.

Bulletin No. 163, "Digestion Experiments on Men With Cottonseed Meal", Texas A. and M. College, College Station, Texas.

2—DIETETICS

Since meat has become very expensive it has been necessary for people to look for other kinds of protein food. Cottonseed flour is rich in protein, even more so than meat. So far as is known it is not wise to use cottonseed flour alone for protein food. It seems better to have variety in meals. That is have cottonseed food one meal, eggs one meal, beans another meal, a cheese dish another, and meat or fish another, thus getting a variety in the diet. It does not give the best results for a family to live all the time on one or two foods even though they may furnish material from each of the food groups. They are apt to lack some material and get too much of some other. A person so far as is known should not eat more than three ounces of cottonseed flour a day. If he does he will likely be eating too much protein. Cottonseed flour should be eaten as a substitute for meat.

3—COMPOSITION

Protein	Carbohydrates	Water	Fat	Calories per Pound
49.8	22.8	9.1	12.52	.....

Cottonseed flour, or the cottonseed used for human food.

#### 4—PREPARATION

Cottonseed flour can be substituted in recipes for one-third of the wheat flour. It gives a slightly different texture to the food when used in this amount. This is because it does not have the same composition as wheat flour.

It is not difficult to make cottonseed flour. Any mill that grinds cottonseed for cattle feed can make good flour by grinding clean, unspoiled seed and sifting it. Cottonseed flour or meal if produced in this way is a very inexpensive food. It is cheaper than wheat flour. Cottonseed flour should be free from hulls, of a bright yellow color, with a pleasant odor and a sweetish taste.

#### 5—AIM OF THIS LESSON

To teach the value and use of one of Oklahoma's cheapest protein foods.

#### 6—RECIPES

##### 1. Cottonseed Flour Bread:

2 cups boiling water	2 teaspoons salt
2 tablespoons shortening	$\frac{1}{4}$ yeast cake dissolved in
$1\frac{1}{2}$ tablespoons sugar	$\frac{3}{4}$ cup lukewarm water
5 cups sifted wheat flour	1 cup cottonseed flour

Put the shortening, sugar, salt and hot water in the bread mixer or pan. Let this cool until comfortably warm. Then add the yeast and cottonseed flour; lastly add the sifted wheat flour until it will knead nicely. It may not take quite all the flour. Knead the dough until it is smooth and elastic to the touch. Grease the mixer or pan and set the dough to rise in a comfortably warm place. When it has raised to a little more than its original size knead it down. Let it rise again and knead it down. Then let it rise and make it into loaves. Place these in greased bread pans, let rise until the loaves have doubled in size. Put them in a moderately hot oven. They should rise during the first five minutes, then brown, and then bake at a slightly lower temperature until they have baked one hour. This bread needs to be thoroughly baked, therefore the loaves must not be too large.

##### 2. Steamed Cottonseed Bread.

1 cup wheat cereal	$\frac{1}{2}$ cup of water
1 cup wheat flour	add enough brown sugar to fill the
1 cup cottonseed flour	cup three-fourths full
2 cups sour milk	1 cup raisins
1 teaspoon of soda	1 teaspoon salt

Mix all the ingredients. This will make a thin batter. Pour this into bakingpowder cans that have been greased. Fill them a good two-thirds full. This recipe will fill about three cans. Put the covers on the cans. Set the cans in a steamer or on a rack in a kettle of boiling water. Let them cook three hours. Then take them out of the steamer. Take off the covers and set them in the oven for ten minutes. Then serve.

### 3. Pop-Overs.

$\frac{3}{4}$  cup wheat flour  
 $\frac{1}{4}$  teaspoon salt  
2 eggs

$\frac{1}{3}$  cup cottonseed flour  
 $\frac{1}{8}$  cup of milk  
 $\frac{1}{2}$  teaspoon bakingpowder

Put salt, eggs and milk in a pan. Put the bakingpowder in the flour. Sift all the flour into the milk, beating all the time. Beat this thoroughly and pour this batter into hot, buttered iron gem pans. Bake thirty to thirty-five minutes in a hot oven.

### FOR TEACHERS

Make cottonseed steamed bread.

This recipe will make one sandwich each for fifteen children.

The ten minutes baking in the oven may be omitted. Without the baking this bread is apt to be slightly sticky on the outside.

Suggestions for correlation with other school lessons:

1. English.—Stories of cotton.
2. Geography.—Name the States in which cotton grows. In what other countries is it raised?
3. Spelling.—Give new words used in this lesson. Define the new words and the use of the same.
4. Nature Study.—Name the other things that the cotton plant supplies to us besides flour.

