What the Government Has to Say---A Page of Special Articles

Bulletins Issued by the United States Department of Agriculture of Interest to the Northwest; Suggestions Covering a Wide Range of Activities; Result of Federal Investigations, Etc.

American Housewives Are Capable of Mixing Flour

THAT the American housewife is herself quite capable of doing all the flour mixing desirable is the commentary of Assistant Secretary of Agriculture Vrooman on the mooted mixed flour question. He says further that the American housewife could materially reduce the cost of living if she were to get the flour mixing habit.

"There are some thirty substitutes that can be mixed with wheat flour in making bread," he said in a statement issued here today. "Many of these are more nutritious than wheat flour; some of them are cheaper than wheat flour, and of these, two or three, at least, are commercially obtainable almost anywhere.

"Potatoes, corn flour, and rice (in certain sections) can be used with profit in mixture with wheat flour in making yeast bread. With wheat flour as dear as it is now the careful housewife stands to effect quite a saving by using one of these products to eke out her wheat flour. Experiments have shown that the substitutes can be used successfully in the proportion of one part to three parts of wheat flour. At least three-fourths of the mixture must be good wheat flour.

"Potatoes have a certain advantage in this regard, since potato bread can be made without going to the trouble to get the commercial potato meal. Plain mashed potatoes, four parts of mashed potatoes to three parts of wheat flour, will serve the purpose quite well. If the dry potato meal or flake is used, the ratio should be one part of potato to three parts of flour.

Boiled rice can be used in much the same way as mashed potatoes, care being taken to allow for the water in the rice and to use about three times as much in bulk as would be used of the rice flour.

"In making potato bread the sponge should be used, and just enough water to serve to mix the yeast with the potato, since the sponge becomes very soft after partial fermentation. The remainder of the flour is worked in afterwards, care being taken to make an extra stiff dough, which should be raised till quite light. This bread is much moister than bread made of straight wheat flour.

"Corn flour, which should cost about two-thirds the price of wheat flour, may be mixed with wheat flour direct, one part of corn flour to three parts of wheat flour. Use the mixture just as though it were wheat flour—and mix it yourself.

"It should be remembered that the addition of starchy materials, such as potatoes, rice or corn starch (which is sometimes used to adulterate wheat flour in baking) tends to make a loaf less rich in protein and hence less nutritious than the straight wheat flour. The addition of corn flour makes little, if any, change in the nutritive value of the bread, but makes it cheaper.

"There are other flour substitutes, such as soybean meal and pea flour, which serve to add greatly to the nutritive value of the loaf when mixed with wheat flour. These products, unfortunately, cannot be recommended in the present emergency, since they are not as yet common articles of commerce in this country.

"In this connection it should be said that a great saving could be effected if the housewife would emulate the professional baker and buy low-grade wheat flours. There are flours on the market quite as good for home baking as the fancy patent flours, which cost in bulk from 20 to 40 per cent less than the fancy grades.

Such are the so-called "second clear" and "low grade" flours, which are graded lower than patents merely because they are darker, not because they are any less nutritious or less palatable. In fact, the darker color may be evidence that the flour is more nutritious than white flour.

"Boston brown bread may be mentioned as a good and very popular medium for the profitable use of flour substitutes. It is made of equal parts of corn meal, rye meal and graham flour and is a very nutritious bread.

"There are various ways of making over bread itself so as to effect a considerable saving. Thus stale bread, crusts, crumbs, etc., can be worked into palatable products such as bread pancakes, breadcrumb blenit and breadcrumb cookies.

"The nub of the mixed flour question hangs on who does the mixing. If the housewife does the mixing she gets the saving entailed; if the baker or the wholesaler does it, he is very apt to get the saving as additional profit."

Authorization has been secured from the Secretary of Agriculture to graze on the National forests of California, for the season of 1915, 212,280 cattle and horses, 505,750 sheep and goats, and 7950 swine. The National forests are accommodating more livestock each year as better methods of handling are brought about and new unutilized areas are brought into use through trail construction, water development and other means.

Figuring Out Farmer's Real Income

EXTENSIVE investigations into the profits of farming have indicated that the amount of money which the average farmer receives for his year's work is little more than that which he would be paid if he hired himself out as a farm hand to one of his neighbors. In other words, though the farmer is in business for himself, the average farmer gets little or no money reward for the intelligence and skill with which he has managed his affairs or the risk and responsibility he has assumed.

But he must get something in return or no one would trouble to farm for himself. A recent study conducted by experts in the United States Department of Agriculture shows that in many cases this reward may best be found in the products with which his farm furnishes him directly. When a farm is nearly, if not quite, self-sustaining, say agricultural experts, when it supplies the family that lives upon it with most of the necessities of life, a large money income is not necessary to prosperity. A greater sum derived from a farm which yields nothing for home consumption may leave the occupants much worse off.

Under the title of "What the Farm Contributes Directly to the Farmer's Living," the Department of Agriculture is about to publish the results of a survey of conditions on a large number of farms in the 10 states of North Carolina, Georgia, Texas, Kansas, Iowa, Wisconsin, Ohio, Pennsylvania, New York and Vermont. The farms selected for study, though possibly a little more prosperous than the average, were fairly representative of their sections which, it will be noted, included three corn and cotton areas, two states in the corn and wheat belt, two regions where general farming was carried on, and three different dairy districts.

The average value of the chief necessities of life—food, fuel, oil and shelter—used each year by the farm family, the investigators found to be $595.08. Of these necessities, estimated in money, the portion contributed directly by the farm was $421.17, leaving $173.91 to be purchased with the cash obtained from the sale of products.

In considering these figures it must be remembered that if the farmer had been compelled to pay city prices for his home-grown necessities, this $421.17 would have represented much less comfort.

Cash Crops Disastrous.

Of the food consumed 63 per cent was furnished by the farm. This proportion varied greatly in the different sections, but was greatest in the locality studied in North Carolina, where the farms supplied 82.3 per cent of the food consumed, while the average in the New York locality was only 50.4.

In view of the present economic crisis in the South this fact is regarded as of particular significance, since it demonstrates the extent to which with a proper system of agriculture Southern farms can be made self-sustaining. Concentration upon one cash crop—cotton—has proved disastrous and agricultural authorities are now trying in every way to induce the people to adopt a system which will lead to conditions similar to those now prevailing in this particular area of North Carolina.

In this connection the investigation revealed some interesting facts in regard to the four items of groceries, animal products, fruits and vegetables in the average farm family's food bill.

Of the value of the food consumed groceries constituted practically one-quarter, animal products more than one-half, vegetables 11.6 per cent and fruit only 6.3. Practically all of the groceries were bought; on the other hand the quantity of fruits and vegetables used was in direct proportion to the quantity raised on the farm and where this quantity was great the grocery bill was correspondingly low.

Produce and Bills.

This was also found to be true of animal products, including, of course, not only butcher's meat, but poultry, eggs, milk, cheese, etc. Where these were abundant on the farm fewer groceries were purchased. Since the grocery bill was found to be ordinarily two-thirds of the entire amount expended in cash for food, one very obvious and effective way of economizing appears to be to raise more vegetables, more fruit, more milk and eggs. In many cases, experts say, this can be done with no appreciable increase in trouble or expense.

Next to food, shelter is probably the most important necessity of life. In considering the farmer's income, however, a common error in the past has been to ignore the question of house rent. The value of the house has usually been included in the value of the land and the whole considered as capital invested on which interest must be paid before the farmer can be regarded as receiving any pay at all.

This method, however, assumes that the farm family is to have shelter for nothing—an assumption which the city worker, with whom it is not unusual to pay out from one-third to one-quarter of his entire wages for rent alone, would regard as most astonishing.

According to the recent investigation, if the average farmer had to pay rent, his home would cost him $125 a year. This figure represents 10 per cent of the value of the average house. Including interest, depreciation and repairs, this is regarded as a fair rental charge for the class of houses usually found on the farm.

Direct Supply Value.

With the information at their command, the investigators were also in a position to compute the average cost of board and lodging on the farm. In this they included an item very easily forgotten—the value of the housework performed by members of the family. This was reckoned on the basis of the wages that would have had to be paid for hired assistance. Including this with the more obvious charges for food, fuel, light and rent, it was found that board and lodging for each individual averaged $14.62 a month.

But of this sum, it is interesting to note, the farmer paid out in cash only 22 per cent. Exclusive of lodging the board of the average hired man cost $10 a month, but here again the farmer had only to pay $3. The remaining $7 was furnished by the farm as a result presumably of the hired man's own efforts.

The averages obtained as the result of this investigation are not, of course, to be taken as mathematically exact for the entire country. In the opinion of agricultural experts, however, they point with convincing emphasis to the possibilities of comfort and prosperity that may be realized by a fuller utilization of all the farm's resources.

Cash crops are not the sole, and on the average they are not even the chief source of real income. It is really what the farm furnishes directly to the farmer that enables him to support his family. To increase the quantity and quality of this direct supply is one great object of farm management studies.

Sisal Fiber Indispensable for the Country's Harvest

A SERIOUS calamity recently threatened the agricultural industry because of the disturbance in Yucatan and the announced blockage of the port of Progreso by General Carranza. The harvesting of practically all grains with modern machinery was involved. If the port of Progreso had been closed, it would have been impossible to secure the sisal fiber used in the manufacture of binder twine.

It was urgent that this fiber be secured immediately and come forward in large quantities by the first of April, otherwise the factories could not have manufactured it in time in sufficient volume for the use of the farmers in harvesting this season's crop. It would have been necessary to harvest by hand, and to have harvested a large part of the grain in this way would have been impossible.

The matter was so serious that the President and the Secretary of State on representations from the Department of Agriculture and the Department of Commerce took the matter promptly in hand. At the request of the President, General Carranza abandoned the blockade of the port of Progreso.

In normal years about 200,000,000 pounds of binder twine are required for harvesting the grain, corn and flax crops. From two-thirds to three-fourths of this is made from henequin sisal fiber, practically all of which is produced in Yucatan and exported from Progreso. This year the demand for twine is certain to be greater than ever.

Last year's wheat crop was the largest the country has ever produced; this year's is expected to be still larger. Nine hundred million bushels is the estimate if normal conditions prevail from now to harvest. It is probable that the production of the other grains, especially of oats, will also be increased and the other crops, the sorghums and corn, will be at least the equal of normal years.

The disturbances in Mexico have already caused an appreciable shortage in the stock of fiber now in this country. Between January 1 and February 28, 67,489 bales of 350 pounds each were brought in as compared with 156,659 bales in the same period last year and 111,654 in 1913. If further supplies had been permitted to be cut off the lack of twine would have resulted in the loss of a very large portion of the crops in the very year when they are most needed.

Shade Trees and Ornamental Shrubs for School and Home

WHAT kind of trees shall we plant to beautify our grounds?

What shrubs would be suited to our school yards?

These are questions which are frequently asked the United States Department of Agriculture. Soil and climatic conditions differ so greatly in the different sections of the United States that in answering such questions special consideration has to be given each section. The Department's specialists have prepared a special list of trees and shrubs suited for general use on private grounds, streets, private parks and school yards for each of five general divisions of the United States. The five divisions are as follows:

1. New England States, New York, Pennsylvania, New Jersey, Ohio, West Virginia, Kentucky, Indiana, Michigan, Illinois, Missouri, Iowa.

2. Delaware, Maryland, Virginia, North Carolina, South Carolina, Georgia, Tennessee, Florida, Alabama, Mississippi, Louisiana, Arkansas, Oklahoma, Texas.

3. Wisconsin, Minnesota, North Dakota, South Dakota, Nebraska, Kansas, Colorado, Wyoming, Montana and Idaho.

4. New Mexico, Arizona, Utah and Nevada.

5. California, Oregon and Washington.

These lists are merely suggestive, but they include such trees and shrubs as seem well adapted to the particular locality, and they may be of assistance to those who are interested in the beautification of towns and cities. Here is a list of those in the fifth district, particularly prepared for the Northwest.

Deciduous trees (coast region)—Large-leaved maple, tulip tree, mountain ash, European linden, sycamore, weeping willow.

Shrubs (coast region)—Roses, weigela, European holly, lilac, laburnum, deutzia, hydrangea paniculata, mock orange, Japan quince.

Trees (Columbia Basin)—Scotch elm, American elm, Norway maple, European linden, sycamore, green ash, silver poplar, Russian poplar, white willow.

Shrubs (Columbia Basin)—Lilac, hardy roses, Philadelphus, Elocagnus hortensis, laburnum, spirea, Tamarix amurensis, Rosa rugosa, barberry.

The beauty of a shade tree depends upon its normal and symmetrical growth. In order to insure this, before planting cut off the ends of all broken or mutilated roots; remove all side branches save upon evergreens, so that a straight whip-like stalk alone remains. Dig holes at least two feet in diameter and one foot deep in good soil, and make them four feet across in poor soil. The sides of holes should be perpendicular and the bottom flat.

Break up soil in the bottom of the hole to a depth of the length of a spade blade. Place two or three inches of fine top soil, free from sods or other decomposing organic matter, in the bottom of the hole. On top of this place the roots of the tree, spread them as evenly as possible over the bottom of the hole, and cover with two or three inches of fine top soil as before.

Tramp firmly with the feet and fill the hole with good earth, leaving the surface loose and a little higher than the surface of the surrounding soil. When the work of planting is completed, the tree should stand about two inches deeper than it stood in the nursery.

In order to insure symmetry of growth, trees must be allowed unrestricted area for development. At least 40 feet should be allowed between trees intended to occupy the ground permanently. Quick-growing, temporary trees may be planted between the long-lived ones to produce immediate results, but these should be removed as soon as they interfere with the development of the permanent plantations.

The lists of trees and shrubs contained in this publication are merely suggestive, but in all cases they include such sorts as are well adapted to the regions.

Big Strawberry Shortage.

Reports received by the office of markets and rural organization, of the Department of Agriculture, from the Louisiana district, which shipped over 1300 carloads of strawberries in 1914, indicate that the frost of March 21 destroyed three-fourths of the crop already set and will probably reduce the expected shipments of 2000 cars by about one-fourth. The plants are setting another crop, but heavy shipments will be delayed for two weeks.

Reports from the Carolinas, Central Alabama and Arkansas indicate no damage, but crop two weeks late.

Canadian Colonization.

During the month of January the Canadian Pacific Railway colonized 7577 acres of land, occupied by about 170 people. This is a very high average for this month.