

Filling the Farm Storehouse



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“**W**ORK Sheets”—“Farm Plans”—“Applications for Grants”—are terms which the Agricultural Conservation Program has brought in its train and taught our tongues to use glibly. They have a surface meaning in relation to the passing phases of the program which is easily understood. In addition to that they carry a significance in relation to the welfare of the rural home which is almost epochal.

On “work sheets” participants in the program listed all their land and its use. And in “farm plans” participants listed intended use of that same land, showing acres to be diverted from soil depleting crops to soil conserving crops and soil building practices.

“Applications for Grants” were made at the end of the season based on performance of these plans. And here is found the significance to the rural home in the fact that no grant will be made for diverting any land from soil depleting crops if those crops are food and feed crops needed by the family.

In other words the government program for improving the condition of agriculture recognizes the family food supply as of first importance. It is likely that this recognition will have the definite effect of causing the plan for the food supply to become incorporated in the regular farm plans of all progressive farmers.

Science and experience find that the food supply of a country home calls for an interlocking plan which includes gardens, orchards, poultry, and livestock. To produce these gardens and orchards, and feed for the livestock, land and a cropping plan are needed; and buildings are needed for storage.

Each family will have to make its own individual plan to utilize available resources. The working out of such a plan

offers all the opportunity for the development of intellect, imagination, and initiative presented by any other great adventure of life. Success will mean good food and plenty of it. There will be other rewards too in the joint family effort.

To aid those families who decide to step boldly out and possess their rich inheritance there is herewith given general information to be used as a guide in making their own plans based on their existing circumstances and needs.

It costs an average family of 5 about \$600 per year for food if every member is properly nourished, and all food is bought. The question is how much of this can the farm supply? From 40 to 60 per cent has been the rule on most good farms in times past. During the depression years many of the most alert farm families have raised the percentage produced at home to 75 per cent and even to 90 per cent. To do this it will take approximately 25 acres of average Texas land, about \$200 worth of livestock, and the ordinary work stock, farm implements, fences, and buildings that most farms already possess.

This living at home demonstration, toward which any farmer can work in a short time, calls for 2 meat hogs, a flock of 50 hens, 1 beef animal, 4 milk cows, and if desired, a few sheep. Under average conditions 6 acres will be devoted to sudan grass pasture in summer and small grain pasture in fall and winter; 12 acres to corn or grain sorghums or other grain crops; 4 acres in hay and silage crops; one-half acre in garden; one-half acre in orchard; and 2 acres for such crops as sweet potatoes, melons, cane for syrup, and field peas.

Such a system will produce all the food needed for a family of 5, and all the feed required for maintaining the livestock indicated, including work stock, without any cash expense except about \$100 for buying cans and jars, salt, sugar, coffee, tea, some flour, and spices, and a small amount for purchase of seed, livestock medicine, and incidentals.

This cash will be forthcoming from sales of surplus dairy, poultry and other products available in certain seasons of the year in excess of family requirements.

Consider These Standard Nutritional Needs

In planning the food to meet the family's daily nutritional needs keep these standards in mind:

Milk—daily—To be used for drinking or in cooked foods.

1 qt. for each child

1 pt. for each adult

These amounts should not be reduced more than one-half and then only for a period of a few months.

Leafy, green and yellow vegetables—preferred, 1 serving daily per person; minimum, 3 times a week.

Other Vegetables—preferred, 1 serving daily per person; minimum twice a week. Extra servings of leafy, green and yellow vegetables or other fruits may be substituted for these vegetables.

Citrus fruits or tomatoes—preferred, 1 cup daily per person; minimum, 3 cups per week.

Other fruits—preferred, 1 serving daily per person; minimum, 3 servings per week. Any vegetable may be substituted for these fruits.

Eggs

Children—preferred 2 to 5 eggs per child per week; minimum, 2 eggs per week.

Adults—preferred, 3 to 7 eggs per week; minimum 1 egg per week.

Beef, pork, lamb, fish, poultry, cheese—preferred, 1 serving daily per person; minimum, 2 servings per week.

Dried peas and beans—these may be substituted for lean meat or cheese 2 or 3 times per week.

Cereals, sweets, and fats—(including butter) as desired, but should not be used to replace "protective foods" which are milk, eggs, citrus, fruits, tomatoes and leafy, green, and yellow vegetables.

NOTE: A "serving" is at least one-half cup of vegetables or lean meat; a cup of fruit; one-half cup of dried peas or beans; 1 tablespoonful of butter; or one-fourth cupful of American cheese.

Every Family Needs These Dairy Products

There should be provided for each member of the family 91 gallons of milk yearly to be used for drinking and cooking. This amount should never be less than 75 gallons per person per year.

Butter and cheese supplied from the home dairy call for an extra 50 gallons of milk per person to provide 20 pounds of butter, 16 extra gallons to provide 12 pounds of cheese. The butter is classed with the fats and the cheese supplements the protein rich foods, such as lean meats and eggs.

Thus the requirement per person would be a minimum of 141 gallons or a maximum of 157 gallons of milk per year. Two average cows giving 600 gallons of milk per year each during lactation period should furnish an adequate supply for the average family and a surplus for the pigs and poultry.

Raise Feed for the Dairy Cow

To feed one 600 gallon cow for a year there will be needed an average of 1 acre of permanent pasture; 1 acre of temporary pasture (sudan in summer and small grain in fall and winter); one-half acre of silage crop (3 tons); 1 acre of hay crop (1 ton); one-half acre of corn (10 bushels); one-half acre of oats (20 bushels of grain); 400 pounds of cottonseed meal, or 800 pounds of cottonseed. This makes a total of 4½ acres needed to produce the feed for an average cow on average land. Grain sorghums may be substituted for corn and oats in sections where these are not adapted.

When the cow is on pasture, the grain mixture should be made up as follows:

- 100 pounds of ground corn
- 100 pounds of ground oats
- 50 pounds of cottonseed meal

When the cow is not on pasture, the grain mixture should be made up as follows:

- 100 pounds of ground corn
- 100 pounds of ground oats
- 100 pounds of cottonseed meal.

When the cow is on pasture, feed 3 pounds of the mixture for each gallon of milk produced. When not on pasture, feed 4 pounds of the grain mixture for each gallon of milk produced.

Poultry Products Can Be Provided at Home

According to the suggested food budget each person should eat 8 to 30 dozen eggs and 20 pounds of poultry meat per year. The meat may be either fresh or canned. Then laying hens replaced or supplemented yearly by 30 baby chicks are needed to supply the above requirements.

Assuming a family of 5 and a flock of 50 hens and 150 baby chicks the equipment will be a 12 by 12 foot poultry house and a 10 by 10 foot brooder house with wall ventilators so that it can be used as a pullet range house in summer.

For preventing diseases, houses should be moved to fresh ground at least once a year if possible. Plow the ground near the house every 3 or 4 months and plant in green feed. Give worm treatment in spring and fall.

The feed necessary consists of 50 bushels of grain, mostly corn, grain sorghums, or wheat. Oats and barley can make up one-third of the ration. Feed the grain whole, 4 to 7 pounds per flock per day depending on the fatness of the hens. Scatter a little grain in the morning, but feed most of it in late afternoon. Supply 2½ gallons of milk daily, any kind, preferably sour, in the morning in preference to water. Keep oyster shell available always. Supply fresh green feed; pastures of small grains in winter and sudan in summer will be good for this. Almost any tender green stuff is acceptable.

Baby chick feed might well be bought ready mixed for feeding chicks up to six weeks old. After this up to laying age feed whole grain and growing mash free choice plus small amounts of milk. This mash is:

80 pounds of grain	2 pounds bone meal
5 pounds meat scrap	1 pound oyster shell
10 pounds cottonseed meal	1 pound salt

Culling and death losses will reduce the flock about 50 per cent by fall. The new crop of pullets will replace those lost. Cull consistently—not in spurts—and fatten the culls to eat or can.

Two Hogs Are Adequate for a Family of Five

Two hogs each weighing 200 to 250 pounds on foot will supply a family of 5 with the needed cured meats, sausage and lard. For most economical utilization they should not be slaughtered at the same time. One should be slaughtered in the fall as soon as the weather is sufficiently cold to cure meat safely and the other should be slaughtered in January or February. Refined cottonseed oil will keep cured meat in excellent condition and spread the pork supply over the entire year.

A pig farrowed in March, April or May will be suitable for fall killing, and pigs farrowed in July, August or even early September will be ready to kill in late winter.

A good pig fast fed will reach a desirable weight for slaughter in six months. Therefore, a pig farrowed in May that is to be killed in November must be fast fed from the beginning, and a pig farrowed in March must be slow fed until it reaches 100 pounds in weight and then fattened. For fast feeding use a self-feeder for shelled corn or threshed grain, or a feeding floor for ear corn or grain sorghum heads. In both cases keep the grain before the hogs at all times. For slow feeding, hand feed about 4 pounds of grain per pig per day.

Regardless of whether slow feeding or fast feeding is practiced, allow the pig free access to pasture at all times; supply a mineral mixture of equal parts of bone meal and salt, allowing access to this at all times. When available feed one gallon of skim milk per pig per day. If skim milk is not available feed a protein supplement of equal parts cottonseed meal and tankage in a self-feeder when whole grain is self-fed. When hand fed, feed one-half to three-fourths pound a day.

To produce two 250-pound meat hogs from weaning age to slaughter will require 50 bushels corn, grain sorghums or other grains; 250 gallons skim milk; 14 pounds of the bone

meal and salt mixture; and plenty of pasture. If skim milk is not available it will require about 80 pounds protein supplement.

Feed One Beef Calf for Family Consumption

A practical method of producing a fat beef is to feed the calf grain—oats, shelled corn or milo—before weaning. Self feed the grain in a pen that the cow cannot enter, or feed the calf after the cow has been turned out for the day. A beef calf fed in this manner will eat, between the ages of 3 and 9 months, about 500 pounds of whole grain and 100 pounds of cottonseed cake, or instead of the cottonseed cake he can be fed 200 pounds of cottonseed.

For best quality beef, feed the calf 3 months after creep feeding and weaning. Supply at all times all of the good hay that the calf will eat. Feed a protein supplement of 1 to 1½ pounds of cottonseed meal per day or use a limited amount of cottonseed, not over 2½ pounds daily. Feed the grains that are available—shelled corn, crushed ear corn or ground milo heads—in the amount that the calf will eat without scouring. In the beginning this will be about 2 pounds daily and may be increased gradually to 10 or 12 pounds. Start feeding with small amounts of cottonseed meal, cottonseed or grain, and increase gradually. Do not feed moldy or dirty feeds; gentle the calf; let him have salt and plenty of clean water; shelter if possible. For insurance, be sure that the calf has been vaccinated for blackleg.

This fattening feed period will require 16 bushels of grain and 1,000 pounds of hay.

A Lamb May Be Slaughtered for Home Use

If the lamb is not already fat on grass it will take a 3 months feeding period to put in proper condition for slaughter which will take 120 to 150 pounds of grain, 150 pounds of hay and about 50 pounds of protein supplement.

Supply all the hay the lamb will eat, feed grain sparingly, one-fifth pound per day for the first few days, and make increases slowly. One-third pound cottonseed meal per day

would improve the grain mixture. Cotton seed may be fed but should not exceed two-thirds pound per head daily. Lambs are on full feed when they are eating about 2 pounds of grain feed (including cottonseed or cottonseed meal) and 1 pound of hay each day. Provide plenty of clean water, salt, clean feed, and keep the water trough and feed troughs clean or the lamb will not thrive.

Horses and Mules Play an Important Part

Work stock on the farm is a part of good economy. Power is supplied by their strength and land enriched by their manure.

On the average a mule or horse will need about 60 bushels of grain and 2 tons of hay during a year.

Naturally a good manager will vary the feed according to the daily work, increasing the grain during the heavy work season.

Under average conditions a horse will consume in feed about 2 per cent of his live weight each day, of which 1 per cent will be grain and 1 per cent hay. In seasons of heavy work the grain consumption will increase.

A Garden Is Essential in Any Live-At-Home Plan

A simple basis to be used in determining the size of garden needed is to plan a total planting of 700 feet of vegetables for each adult person in the family. Average yields of vegetables in areas of ample rainfall will amount to a pound per foot of row space, while in areas of limited rainfall or other unfavorable growing conditions, yields may be reduced to a half pound per foot of row space or less. In the latter instance, instead of planting 700 feet of row space per person, 1,400 feet should be planted. Under ordinary conditions, one-tenth acre (21 by 21 feet) should be planted per person, or for a family of 5 persons, a minimum of one-half acre in vegetables should be planted.

Vegetables are classified according to the food elements which they supply, as follows:

1. Leafy, green and yellow vegetables: lettuce, cabbage, collards, spinach, mustard, turnip tops, swiss chard, endive,

kale, english peas, lima beans, green string beans, yellow string beans, green peppers, carrots, yellow squash, asparagus, pumpkin, and yellow turnips. Plant a total of 100 feet of row space of this type of vegetable per person in areas of ample rainfall; plant a total of 200 feet of row space per person in areas of limited rainfall.

2. Starchy vegetables: irish and sweet potatoes. Plant a total of 200 feet of row space per person in areas of ample rainfall; plant a total of 400 feet of row space per person in areas of limited rainfall.

3. Tomatoes. Plant 100 feet of row space per person in areas of ample rainfall; plant 200 feet of row space per person in areas of limited rainfall.

4. Garden fruits, which may be substituted for any fruit except citrus or tomatoes, include watermelons, cantaloupes, and rhubarb. These may be planted in the garden or in the field. About three rhubarb plants will be needed per person.

5. Other vegetables: beets, cauliflower, celery, corn, cucumbers, onions, radishes, parsnips, white squash, white rutabagas, white turnips. Plant a total of 200 feet of row space per person, exclusive of corn, in areas of ample rainfall; plant a total of 400 feet of row space per person in areas of limited rainfall. For corn, see "cereals for the table."

6. Dried mature peas and beans. Plant about 25 feet of row space per person. Plant 100 feet of row space of peas or beans to produce about 5 pounds of dried peas or beans.

7. Some herbs should be planted for seasoning.

Every Farm Should Have A Fruit Plot

Each person should have 150 pounds of fruit per year. This would amount to about 3 servings per week. To obtain this quantity of fruit, the farm fruit plot should include the following plantings per person.

South Texas: 2 citrus trees, 1 fig tree, 2 grape vines, 6 dewberry or blackberry plants.

Central Texas: 3 peach trees, 1 plum tree, 3 grape vines, 10 dewberry or blackberry plants.

In determining the yield of various trees or vines in pounds of fruit, the following table may be used as a basis:

Kind of Fruit	Average Yield	Weight in Pounds
Peaches	½ bu.	24 lbs.
Plums	½ bu.	28 lbs.
Citrus	1 bu.	50 lbs.
Apples	2 bu.	96 lbs.
Pears	2 bu.	100 lbs.
Cherries	½ bu.	28 lbs.
Figs	3 gals.	18 lbs.
Grapes	¼ bu.	12 lbs.
Berries	1 qt.	1½ lbs.

In setting the orchard, the trees should be spaced as follows: peach, plum, cherry-plum, citrus, and fig, 25 feet apart; apples and pears, 40 feet apart; grape vines 12 feet apart; berries 3 feet apart. In areas where the growing of fruit is impractical, or where the orchard has not yet come into production, an additional planting of tomatoes may be substituted for the quantity of fruit needed.

Cereals for the Table Can Be Grown at Home

There should be provided 50 pounds of corn meal per person. To produce this it will require one bushel of shelled corn which can be grown from approximately one-third pint of seed planted on 600 feet of row space on land which will yield 25 bushels per acre.

The 20 pints of canned corn needed per person calls for about 1 bushel of roasting ears. At the rate of 25 bushels per acre 1 pint of seed planted on one-fifth acre of land, in 600 feet of row space, would be required to produce this corn. Surcrotter sugar and honey june are varieties of sweet corn which have been developed especially for Texas.

Only sound ears of corn free from weevils, smut or other damage should be used for meal or hominy. The tip ends should be removed before shelling. After shelling the corn should be

allowed to fall through the air from one container to another to remove any light, damaged kernels, particles of cob or trash.

Wheat should be free from smut and well cleaned before being milled into flour.

Honey and Syrup Help Provide Sweets

Of the 70 pounds of sweets required for one person for one year, 10 pounds may well come from honey and syrup. Where nectar producing plants are available and in cases where some member of the family has a natural inclination for bee-keeping, from 2 to 5 colonies of bees may be profitably kept. In such locations a yearly average of 30 pounds of honey per colony should be produced. The cost of equipment will be about \$5 per colony.

A yield of 100 gallons or more of syrup may usually be expected from crops planted on one acre of fertile land. Some good varieties of sorghum for syrup are gooseneck, honeydrip, sugardrip, and orange. In East Texas an excellent quality of syrup can be made from ribbon cane. In certain sections of the state red top cane is the surest crop for syrup.

Storage Should Receive Attention

With the production of an ample supply of food crops, some thought should be given before harvest time to storage places. This applies particularly to semi-perishable products, such as potatoes, cabbages, onions, and many others. To make the storage of such products reasonably safe, a storage place should be provided that is well ventilated and dry, insulated against excessive heat or cold. Many farms have such places, but some do not. Storage places need not be expensive; they may be built very inexpensively where native materials, such as logs, or rock, or sand and gravel for concrete, or adobe are available. Blue print plans for storage places made of logs, of lumber, and of concrete, are listed at the end of this publication. The ventilated pantry is suggested as a suitable indoor storage place for canned products and small quantities of fresh products.

Here Are Feed Requirements for Farm Livestock and Poultry

PRODUCT	Standard Yearly Requirement						TOTAL
	100 Hens	One Dairy Cow	One Beef Calf	One Hog	One Lamb	One Horse or Mule	
Grains - - - - - lbs.	5,600	1,400	1,500	1,400	150	3,400	13,450
Corn							
Grain sorghum							
Wheat							
Oats							
Barley							
Protein Supplement - lbs.		400	250	40	40		730
Cotton seed							
Cotton seed meal							
Tankage							
Skim milk - 1,800 gals.							1,800
Hay - - - - - tons		1	½		3/40	2	3 23/40
Silage - - - - - tons		3					3
Improved Pasture - - acres	1	2	½	¼	¼	2	5 7/8

In those regions where oats are adapted, it is a good policy to grow oats for grain in addition to corn and grain sorghum in order to be able to balance the dairy, beef, and poultry rations properly with home grown feed. Oats should replace corn in the horse ration provided oats can be raised as cheaply as corn or grain sorghum.

In growing feed crops, it is important to maintain or increase the soil fertility by a good crop rotation, including such legumes as are adapted, and by terracing and contouring as needed. All available manure may profitably be utilized on the land for the production of feed crops. On certain soils commercial fertilizers may be used in addition to manure in order to increase the yields.

Protein Rich Feeds Supplement Carbohydrate Feeds

By protein supplement is meant a feed rich in protein to supplement the carbohydrate feeds such as corn or grain sorghums for the livestock. The protein supplement for dairy cows may be cottonseed meal, peanut meal, soybean meal, and so forth. For poultry the protein supplement may be skim milk

or meat scraps. (See table, "Feed Requirements for Farm Livestock.")

Plant Enough Acreage To Produce Needed Hay

The yearly hay requirement for the livestock listed in the table is nearly 4 tons. The Texas average yield of 2 tons per acre of alfalfa and sorghum hay and 1 ton per acre of other legume and grass hays may be used as a guide in determining the acreage required. The yield will of course vary on different farms and sections of the state, depending upon the fertility of the soil and the amount of moisture available. Some good hay crops are sorghum, sudan grass, alfalfa, cowpeas, soy beans, and sweet clover.

A common mistake in hay making is to allow the plant to become too mature before harvesting, thereby lowering the vitamin and protein content of the hay. Sorghum should be harvested for hay when the seed is maturing, alfalfa when about one-fourth to one-half in bloom, cowpeas when the first pods are maturing, soy beans when the pods begin to form and sudan grass when the plants begin to head.

Use A Trench Silo for Silage

For the 3 tons of silage which are required per cow, a trench silo can be used. Good silage crops are grain sorghums, especially hegari; red top or other adapted varieties of sorghums may be used. Corn is an excellent silage crop.

It is also a good policy to have at least a year's surplus of silage on hand in case of crop failure. For this purpose another silo of needed dimensions may be provided, or a silo large enough to carry 2 years' silage may be dug. To supply an adequate amount of silage, it is best to plant 1 acre per cow of any of these crops and put up a 2 years' supply.

Sudan and Small Grains Provide Pasture

Six acres of pasture sown to sudan grass in spring should give ample grazing from June to October for cows and calves and work stock, except during the usual mid-summer drouth.

This will furnish enough for the chickens also, and if fenced hog-proof, will take care of the meat hogs, too. Sow sudan grass in 30 inch rows at the rate of 10 pounds of seed per acre.

The same 6 acres may be sown to small grain in the fall as soon as the sudan grazing plays out, to make a winter pasture. Italian rye grass sown broadcast at the rate of 20 pounds per acre or 2 bushels of oats per acre or 1 bushel of wheat or $1\frac{1}{2}$ bushels of barley or 1 bushel of rye are recommended. Italian rye grass is not so apt to winter kill as the small grains. Mixed winter pastures of Italian rye grass and small grains will provide better grazing and a longer grazing period. Such pasture should give good grazing for 2 or 3 months.

The ideal to work toward is a permanent pasture composed of improved grasses and clovers in addition to native grass sod. Such a pasture gives grazing nearly every month in the year and saves large amounts of feed. Where a permanent pasture is used the acreage of temporary pasture given above may be proportionately reduced. All land should be terraced or contoured for soil and water conservation and the use of barnyard fertilizer is recommended.

Needed quantities of food and feed for providing an abundant home food supply have been indicated in the foregoing pages. But management of the land, the livestock and labor needed to produce such abundance has only been hinted at here and there. Development of that management will be the family problem. Success will spell family advancement along the lines of "profit, comfort, culture, influence, and power."

Many sources of information are available to those seeking to shorten the "trial and error" road and enter at once into their inheritance of proven scientific knowledge. Extension publications listed below are sources which may be secured from the offices of county Extension agents. Counsel and trained guidance may be had at these offices also.

Order These Publications from the Extension Service

- Dairying:** B-69 Feeding and Care of the Dairy Herd
- Pastures:** B-82 Pastures
- Lambs:** C-96 Lamb Feeding
- Beef:** B-78 Feeding Beef Calves
B-79 Killing and Cutting Beef on the Farm
- Pork:** B-94 Killing and Curing Pork
B-98 Successful Hog Feeding
- Poultry:** B-83 Growing Baby Chicks
C-33 Feeding for Egg Production
C-69 Common Worms in Poultry
- Gardens:** B-73 Home Orchards
B-92 Sugirrigation for Gardens
C-59 Fall Gardens
C-62 Tomato Growing in Texas
C-109 Making a Garden Plan
C-110 Hotbeds for Home Gardens
- Orchards:** B-73 Home Gardens
- Canning:** C-76 Feeding the Family the 4-H Pantry Way
C-55 Canning Meat in the Home
- Storage:** MS-133 Log Houses for Storage
MS-323 Hot Beds for Home Gardens
62 Concrete Cellar Blue Print Plan
187 Vegetable Storage House Blue Print Plan
202 Storage House—Smoke House Blue Print Plan
208 Ventilated Pantry Blue Print Plan
- Silos:** B-84 Trench Silos
- Grains:** L-7 Important Steps in Growing Corn
L-8 Important Steps in Growing Sorghums
- Grasses:** L-9 Important Steps in Growing Sudan Grass
L-10 Important Steps in Growing Sweet Clover
- Legumes:** L-11 Important Steps in Growing Peanuts
L-12 Important Steps in Growing Soy Beans
L-13 Important Steps in Growing Cow Peas

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