SEVEN PRINCIPLES

of

SUCCESSFUL FARMING

in

OKLAHOMA

Circular 446

Extension Service
OKLAHOMA A. & M. COLLEGE
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Cooperative Extension Work in Agriculture and Home Economics, Extension Service, Oklahoma A. and M., and U. S. Department of Agriculture cooperating.
'Acts of Congress of May 8 and June 30, 1914.

The most important cash crops in Oklahoma include wheat, cotton, corn, sorghums, oats, alfalfa, peanuts, and prairie hay. Oklahoma is also rapidly becoming one of the leading states in livestock production.

A well balanced agriculture includes cash crops, feed crops, pasture, and livestock. The safest and most profitable system of farming results when the proper balance between cash crops and livestock is achieved.

Such a system of farming will aid in maintaining soil fertility, increase farm income, and make for greater stability in the farming industry.

THESE SEVEN PRINCIPLES WILL LEAD TO A SAFER AND MORE PROFITABLE SYSTEM of FARMING

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1. BALANCE YOUR CROPS AND LIVESTOCK. Follow a diversified system of farming. Depending on a single crop often leads to loss of income through crop failure or low market price at time of harvest. A balanced system of farming includes cash crops, feed crops, pasture, and livestock.

2. CONSERVE AND IMPROVE YOUR SOIL. Use suitable practices to conserve both soil and water. Apply lime on acid soils to correct soil acidity and supply calcium for plant growth. Apply phosphate fertilizer on phosphorus - deficient soils. Grow sweet clover, winter legumes, and summer legumes to increase the organic matter and nitrogen content of the soil. Use commercial fertilizers in areas where moisture is not a limiting factor in plant growth. Maintaining the fertility and productivity of the soil will increase crop yields and improve the quality of the crops grown.

3. ROTATE YOUR CROPS. A good system of crop rotation includes legume crops for maintaining the fertility of the soil. It also provides several sources of income and gives some protection against crop failure and low market prices. Crop rotation distributes labor requirement throughout the year and permits better use of farm machinery in diversified farming areas.

4. PLANT HIGH QUALITY VARIETIES. High quality seed of an adapted, recommended variety is the foundation of a good

crop. It means a higher yield and a better quality of crops produced. Planting inferior varieties of cotton, wheat, or other crops may result in a lower price level for all crops produced in the entire community or area. A good plan is for all farmers in the community to agree on the best variety, or at least one that is well adapted in the community. In this way the community can build a reputation for producing crops of uniform grade and high quality.

5. MAKE YOUR LABOR COUNT. Labor is one of the biggest items of expense in growing and harvesting most crops. Practices which increase the yield per acre will usually lower production costs and increase profits. Use methods and improved machinery that will save labor.

6. CONTROL PLANT DISEASES AND INSECTS. Plant diseases take a heavy toll of crops each year. Seed treatment, planting disease-resistant varieties, and using a good system of crop rotation are the recommended methods of plant disease control.

Insects often cause serious injury to crops, and frequent examinations should be made during the growing season to determine if harmful insects are present. On many crops insects can be controlled at very little cost and with profit to the producer. Consult the county agent in regard to proper methods for control of both plant diseases and insects.

7. HARVEST FOR HIGH GRADE AND SELL FOR QUALITY VALUE. Proper care at time of harvest will pay large returns in increased value of the crop. Harvesting wheat too early, or delay in harvesting cotton after it is opened, will result in lower grade and quality and smaller returns to the grower. Maintaining soil fertility, planting

approved varieties, and harvesting so as to preserve high quality, all contribute to increased income and greater profits.

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Cotton was one of the first crops planted by the pioneers in Oklahoma, and it soon became the state's leading cash crop. Cotton is still the most important cash crop in the southern part of Oklahoma. It is well adapted in the state and facilities are available for growing, marketing, and processing the crop.

In recent years many farmers have not raised cotton, partly because of a shortage of labor for harvesting. If cotton acreage allotments should again be established, the state would suffer because of the reduction in cotton acreage. This would be a most unfortunate situation and might result in a great loss in income to farmers in the cotton section of the state. In view of this situation, every farmer who has land suitable for cotton may well consider the matter of planting the acreage that can be properly cultivated and harvested this year.

PLANT NUTRIENTS REMOVED BY

CROP—	Portion Harvested	Yield per Acre †	
ALFALFA	HAY	6000	lb
BARLEY	GRAIN	30	bu.
	STRAW	1500	lb
CORN	GRAIN	25	bu.
	STOVER	1500	lb
COTTON	LINT	250	lb
	SEED	500	lb
COWPEAS	HAY	3000	lb
KAFIR	GRAIN	20	bu.
	FODDER	3000	lb
OATS	GRAIN	40	bu.
	STRAW	2000	lb
PEANUTS	HAY	3000	lb
POTATO, IRISH		100	bu.
POTATO, SWEET		100	bu.
PRAIRIE HAY		3000	lb
RYE	GRAIN	10	bu.
SOYBEANS	HAY	2500	lb
TAME HAY		4000	lb
WHEAT	GRAIN	20	bu.
	STRAW	2000	lb

† These values may be lower or higher than normal
‡ One pound of calcium in 15 bales of cotton.

SUGGESTED CRO

For the Cott

1. OATS, SWEET CLOVER
   SWEET CLOVER
   CORN OR SORGHUMS
   COTTON OR PEANUTS
2. COTTON — Vetch seeded in fall
   VETCH, PEANUTS — Rye seeded in fall
   RYE, COTTON

For the Whe

1. OATS OR WINTER BARLEY, SWEET CLOVER
   SWEET CLOVER
   WHEAT — 2 years

3. ALFALFA –
   GRAIN SOR
   WHEAT —

For the Cor

1. OATS, SWEET CLOVER
   SWEET CLOVER
   CORN — 2 years
2. OATS — Alfalfa seeded in fall
   ALFALFA — 4 years
   CORN — 2 or 3 years
3. CORN
   SOYBEANS
   SMALL GRAIN, SWEET CLOVER
   SWEET CLOVER

CROPS GROWN IN OKLAHOMA

TOTAL QUANTITY OF NUTRIENT (LBS. PER A.)			
Nitrogen	Phosphorous	Potassium	Calcium
151.0	12.6	121.2	85.8
27.2	5.5	7.5	.7
8.8	1.3	18.9	4.8
21.7	3.9	4.6	.2
14.1	1.3	25.1	6.8
.8	.1	1.0	‡
16.8	2.7	4.7	1.0
89.4	7.5	43.5	33.9
20.2	3.3	3.9	.5
36.0	5.1	46.2	14.1
24.6	4.2	5.1	1.2
12.6	2.6	33.2	7.2
45.0	3.0	30.0	45.0
20.4	3.6	38.6	.6
13.4	2.8	28.5	1.1
30.0	2.4	24.0	6.0
10.0	2.0	3.2	.2
55.0	6.5	31.0	28.0
48.0	9.6	45.2	18.8
25.2	5.2	5.3	.4
12.2	1.4	16.0	4.4

production on many soils.

P ROTATIONS

on Section

3. COTTON (to be fertilized)
   OATS WITH LESPEDEZA, COWPEAS, OR MUNGBEANS
   CORN WITH COWPEAS (alternate row effect)
4. ANNUAL SWEET CLOVER
   COTTON — 2 years

at Section

2. AUSTRIAN WINTER PEAS — 1 year
   WHEAT — 3 years

— 4 years
RGHUMS — 1 year
2 or 3 years

n Section

4. OATS, SWEET CLOVER
   SWEET CLOVER
   CORN
   COTTON

5. OATS, SWEET CLOVER
   SWEET CLOVER
   CORN OR SORGHUMS
   COTTON OR PEANUTS

ACHIEVING A BALANCED AGRICULTURE

Seven Important Principles

BALANCE CROPS AND LIVESTOCK

TAKE CARE OF THE SOIL

PRACTICE CROP ROTATION

PLANT ADAPTED VARIETIES

MAKE EFFICIENT USE OF LABOR

CONTROL INSECTS AND DISEASES

HARVEST AND SELL FOR HIGH GRADE

CONSULT YOUR COUNTY AGENT FOR ASSISTANCE IN CARRYING OUT THIS PROGRAM IN YOUR COMMUNITY.