

Table 19.—Power used per acre, principal crops, on farms with and without tractors, Southern Piedmont, North Carolina

Crop	With 1945 practices			With improved agronomic practices <sup>1</sup>		
	Farms without tractors		Farms with tractors <sup>2</sup>	Farms without tractors		Farms with tractors <sup>2</sup>
	Workstock	Workstock	Tractor	Workstock	Workstock	Tractor
	Hours	Hours	Hours	Hours	Hours	Hours
Cotton	43	29	3.7	43	29	3.7
Corn	38	20	3.3	40	22	3.3
Wheat	24	11	3.4	24	11	3.4
Oats, grain	18	12	3.4	18	12	3.4
Oats, hay	24	16	3.4	24	16	3.4
Barley	*	*	*	24	11	3.4
Lespedeza, 1st year:						
Seed	1	1	0	1	1	0
Hay	10	10	0	12	12	0
Lespedeza, reseeded:						
Seed	1	1	0	1	1	0
Hay	10	10	0	12	12	0
Alfalfa hay	*	*	*	27	27	0
Corn silage	*	*	*	58	40	6.9
Permanent pasture	0	0	0	2	2	0

<sup>1</sup> Adjusted from 1945 for changes in yields only and not for possible differences in use of tractors.

<sup>2</sup> Excludes hours for combining small grain and lespedeza seed, which is usually performed on a custom basis.

\* Not a common enterprise.

Table 20.—Feed, power, and labor requirements, principal livestock enterprises, Southern Piedmont, North Carolina

Item	Unit	Produced with 1945 practices			Produced with improved practices			Sow and 13 pigs
		Dairy cow	100 hens	One hog raised	Dairy cow	100 hens	100 broilers	
<b>Feed</b>								
Home-grown:								
Corn	Bu.	12	60	16	17	72	7	<sup>2</sup> 201
Oats	Bu.	14	0	0	12	18	3	0
Wheat	Bu.	0	30	0	0	61	6	0
Hay	Ton	1.5	0	0	2.0	0	0	0
Commercial feed	Cwt.	10	8	2	5	14	3	10
<b>Land required:</b>								
Total	Acre	4.0	4.1	.6	2.7	4.2	.4	8.0
For home-grown crops	Acre	1.6	4.1	.6	1.2	3.7	.4	4.0
For pasture	Acre	2.4	0	0	1.5	.5	0	4.0
<b>Labor and power</b>								
Man: Total	Hour	232	412	44	234	386	29	382
To produce feed	Hour	37	122	24	39	96	9	192
To tend livestock	Hour	195	290	20	195	290	20	190
<b>Workstock:</b>								
To produce feed	Hour	39	132	23	37	109	11	166

<sup>1</sup> Equal pounds of oats or barley may be substituted.

<sup>2</sup> Equal pounds of ground wheat or barley may be substituted.

<sup>3</sup> Acreage is adjusted for double-cropping.

1.2 and 3.7 acres of cropland would be required for one dairy cow and 100 hens, respectively.

Rates of Production: Livestock production can be increased materially through adoption of more efficient practices (Table 21). These include better breeding, housing, and sanitation, in addi-

tion to feeding and improvement in pasture facilities. For more efficient performance with improved practices, the quality of livestock must be raised above present levels. In the case of both milk and eggs, production could be increased from 50 to 80 per cent over present rates.

Table 21.—Rates of production, principal livestock enterprises, with 1945 practices and improved practices, Southern Piedmont, North Carolina<sup>1</sup>

Class of product	Unit	Rates of production		Percentage change over 1945
		1945 practices	Improved practices	
<b>Dairy:</b>				
Milk per cow	Pound	3,952	6,000	52
Veal per cow	Pound	75	100	33
<b>Chickens:</b>				
Eggs per 100 hens	Dozen	765	1,400	83
Meat per 100 broilers	Pound	*	238	*
<b>Hogs:</b>				
Pigs per sow	Number	*	13	*
Pork per hog raised	Pound	260	215	-17

<sup>1</sup> Rates for 1945 based on most common practices; rates for improved practices are based on estimated production with improved practices.

\* Insufficient data, not a common enterprise.

## PART II. DEVELOPMENT OF ALTERNATIVE FARMING SYSTEMS

The quantity, quality, and price of resources, together with market conditions are important in planning adjustments that would increase net farm incomes. It is evident from the preceding discussion that considerable opportunities exist for increasing net farm incomes.

Two factors over which the farmer has some control are im-

portant in determining the income from a specific farm: (1) selection of enterprises and quantity produced, (2) the degree of efficiency in the operation. The effect of improved practices on crop yields and livestock production rates has been discussed in the previous section. The problems involved in selecting and combining enterprises are discussed in the following section.

### SELECTION AND COMBINATION OF FARM ENTERPRISES

For maximum net farm income, farmers should select for their main line of production the enterprise that will yield the highest net returns from resources available. Of particular importance is the size of enterprise as limited by

family labor and available equipment.

Under present conditions within the Southern Piedmont, land and labor are the chief factors to be considered in examining production opportunities. In most cases,