

between 90 and 110 acres. After that point there was no reduction in cost on larger units.

2. IOWA CASH GRAIN AND CROP-LIVESTOCK FARMS

(a) *Southern Iowa*

The hilly farm in Southern Iowa showed lowest costs for a unit of about 320 to 360 acres. This represented a 2-man operation and a 3-plow tractor. The cost revenue ratio was 0.95. This figure means that the livestock-grain farmer had to spend 95 cents for every dollar of gross income.

On upland farms in Southern Iowa the cost revenue ratio was much lower. A 1-man, 3-plow tractor farm of 160-acres produced \$1.00 of gross income for every 62 cents in costs. Two-man farms showed a little better ratio—a 320-acre farm with two 3-plow tractors only had to spend 57 cents for every dollar of gross income. However, cost advantages in larger units were less than the 320-acre farm.

(b) *Western and Northeast Iowa*

A 280-acre farm with a continuous corn program came out with a cost revenue ratio of 0.42. Under a 5-year rotation the lowest cost on a farm of 320-acres was 0.46. Under current cropping practices a 400-acre farm also resulted in a cost revenue ratio of 0.46. For Western Iowa costs were considerably higher. This study showed little difference in costs (only 2 cents per \$1.00 of income) in Northeast Iowa between 400 and 800 acres.

3. IRRIGATED COTTON FARMS IN TEXAS AND CALIFORNIA

(a) *Texas High Plains*

This particular study concluded that a 1-man farm with adequate capital could be as efficient as any of the larger farms. A 1-man farm of 440-acres, with 102 acres of cotton and 6-row machinery resulted in an expenditure of 71 cents for every dollar of gross income. None of the larger farms could go below this. Here is a summary of the Texas High Plains farm statistics:

Cost revenue ratios

1 man, 120 to 240 acres.....	0.732
1 man, 240 to 680 acres.....	.708
2 man, 560 to 920 acres.....	.73
3 man, 880 to 1,280 acres.....	.709
4 man, 1,200 to 1,520 acres.....	.711
5 man, 1,480 to 1,800 acres.....	.712

(b) *Fresno County, California*

On heavy soils in Fresno County, California, costs of producing cotton proved to be lowest on a 4-man farm of 1,134 acres. The cost revenue ratio was 0.85. On a 1-man farm of 270 acres, the cost revenue ratio was 0.91.

However, on light soils in Fresno County a 710-acre, 4-man farm proved to be most efficient. A 1-man, 193-acre farm had a cost revenue ratio of 0.83, the 4-man farm had a cost revenue ratio of 0.76. There was no increase in efficiency after this point. The study included farms up to an 8-man operation.

4. CALIFORNIA CASH CROP FARMS

This study, based on farms in Yolo County, included sugar beets, tomatoes, milo, barley and safflower. Cost per dollar of revenue on these farms declined sharply up to about \$100,000 of revenue. The cost revenue figure on these farms was 0.70. On farms of 1,400 acres which produced on the average about \$240,000 worth of products, the cost revenue declined to 0.65. After that point the cost revenue statistic increased to 0.72 at \$440,000. There was no decrease after that on larger units.

Conclusion of the author of this study was that there was no economic incentive to operate extremely large farms—600 to 800 acres could compete with larger farms. The difference in cost was slight and risks pertaining to management on larger farms were considered greater.

5. IMPERIAL VALLEY VEGETABLE CROP FARMS

This particular study concluded that with contract services longrun costs are constant from very small farms up to 2400 acres. Another conclusion was that the Imperial Valley farmer achieves no advantage in owning equipment and actually has advantages over larger farms which own equipment used at less than full capacity. This assumes that contract facilities are available for the small.