FARM MECHANIZATION IN NORTH CAROLINA David S. Weaver, Director N. C. Agricultural Extension Service

The history of man is the story of a hungry animal in search of food.

From the beginning until about 7,000 years ago, man rouned the earth gathering roots, fruit, nuts and leaves, and hunting game. When man discovered he could eat better and defend himself better if he stayed in one place and grew crops and domesticated animals, civilization began.

Because even with the crudist of tools man could produce more food than he needed, some workers were released from the primary need of man -- the need for food. Thus, workers were available for the other secondary activities, making weapons, boats, buts, clothing, etc. and specialization started.

This delegation of duties permitted concentration in special fields and as proficiency increased, so did the rewards of specialization. Continuing for centuries, we now find a very efficient system for the production of necessities and luxuries. Wherever food production became efficient, other arts and sciences flourished. When food production takes the labor of most of the population, other activities are restricted.

Here in the U. S., we find the greatest advance in farm mechanization as a result of this method and hence we lead the world in almost every field of production. Many nations, where food production is inefficient, are still retarded by our standards.

This steadily reducing proportion of food producers has reached its lowest level in our time in the U. S., but conversely our non-food production is higher than anywhere else in the world. We call this bountifulness a higher standard of living, and it is largely due to the use of farm power and machinery. It is the farmers' over-increasing efficiency that makes possible the fields of

work for the non-farm employed people. Much of the Income from mechanized farming is now shared by businesses and industries serving agriculture. We have a whole new concept of so-called "agri-business". At State College, we have even changed our whole agricultural curriculum to fit this concept. Acriculture no longer means simply the production of farm commodities, but it has grown to mean the industries which supply agriculture with its needs and those industries that take the products of agriculture and convert them into more saleable units for the market. It is true that while the production phase of agriculture requires less than 12 per cent of the total population, the later concept of agriculture in a broad sense employs nearly 40% of the employed workers in this country. Even though farms are larger and better managed and even though farmers are better organized and benefit from certain soil conservation programs, they are still very much in competition with each other. As a consequence, they are continually threatened by over-production and failing prices. Mechanization under such conditions and in many individual instances is not a means of enriching agriculture but rather an adjustment which the farmer must make if he is to stay in business at all. It must be said that mechanization has been a means of improving the lot of the farmer and rural living as well as enriching society as a whole. Mechanization in its broader sense includes many tools and conveniences which make farm work much less burdensome and family living more pleasant.

The number of machines and gadgets in common use is almost limitless, but among those that can be briefly mentioned here are piped running water, electric water pumps, feed grinders, hay balers, combines, automatic mechanical feeders, mechanical milkers, weed killers, tertilizer distributors, sprayers and dusters, electric pig brooders. In the home there are laundering machines, hot water heaters, retrigerators, frozen food cabinets, dishwashers, sewing machines, radios and televisions.

Probably one of the best single indicators of the mechanization of agriculture is tractor ownership. The shift from the mule to tractor power is a major adjustment which has an impact on all aspects of farming and family living. Before World War I, which was less than 40 years ago, only 4% of the nation's farms and tractors. During the 1920's and the 1930's, tractor farming increased moderately in the nation to 23% by 1930. This was not true in the South and especially in North Carolina, because only 4.3% of North Carolina farms reported tractors in 1940 and only 7.9% in the South. During the 1940's, the percentage of farms with tractors doubled, rising to 47% in 1950 while in North Carolina the percentage of farms increased to 22% and 26% in the South. Since 1950, the increase as would be expected was greater in the South than in the nation and greater in North Carolina than in the South. That is, North Carolina rose from 22% to 39%, the South from 26% to 40%, and the nation from 47% to 60%.

Although North Carolina and the South have lagged in farm mechanization by comparison with the rest of the nation, there are indications that they may catch up with the rest of the nation in the relatively near future.

Now a word or two about our agricultural prospects for the coming year. The year 1959 was a reasonably good one for North Carolina farmers as far as total production was concerned. Prices were not as good as they should be with the exception of some crops but generally speaking the seasons were fairly good and the total return for the year in dollars will be because of 1959 ranking high as compared to crop values in previous years.

While many of the problems plaguing the farmer remain to be solved, the fact that each day sees 8,000 more mouths to be fed in America means that our market is expanding very rapidly. North Carolina with its favorite climate and the ability to produce many products will continue to produce a significant share of the country's agricultural commodities. The well-trained farmer --

able to make important decisions, equipped with farm machinery and other income producing items — will continue to be prosperous. Our greatest problem lies in the small farmer unable to take advantage of much of the technology available for his use. Many of these have great opportunities for improvement and will make the necessary adjustments. Unfortunately, some will fall by the wayside. This has been the history of this country for a century and a half.

Farm machinery and farm power will continue to be a major factor in the further agricultural progress of our State. It is believed that our present great cash crops can be maintained and even increased, but that the greatest growth in North Carolina's agriculture will come about through the production of other crops and particularly through the expansion of the livestock industry. This, in turn, means greater acreages in pastures, small grain and corn, with the consequent need for efficient operation of larger field areas. Here is the place that farm machinery will find its greatest opportunity. The future is bright for North Carolina agriculture.