terials. The production of liquid phosphoric acid seems to be the most desirable method, and several processes have been worked out for its manufacture from both high-grade and low-grade phosphate rock. Liquid phosphoric acid can be combined with ammonia or potash to form soluble, highly concentrated, solid fertilizers which can be handled and transported at a minimum cost. Although these concentrated materials are not produced in any appreciable quantity at the present time, it seems very likely that they will constitute a large portion of the phosphate fertilizer used in the future.

K. D. JACOB.

PHOTOGRAPHS Tell Story of Agriculture

The coming of the motion picture and the much more general use of photographs in educational publications, magazines, and newspapers in the last 20 years have made the present generation in the United States both in the city and country picture minded. Pictures telling a definite story or lesson relating

FIG. 172.—This contrast picture tells the story of a ditch-bank-pasturing demonstration. On the right we see the unpastured bank and at the left the bank that has been pastured

to the farm and farm home have found important uses in extension education. They are used to help tell effectively the story of successful demonstrations in efficient farming and home-making practice. Such photographs make clearer and more readable bulletins, circulars, leaflets, and posters sent out by the extension divisions of the State agricultural colleges and the United States Department of Agriculture. They illustrate stories about successful extension demonstrations appearing in newspapers, magazines, and farm journals. As lantern slides and in charts and posters extension workers use them to show more clearly the things talked about. In extension

exhibits they show steps in demonstration and better ways of doing certain things.

A series of well-taken photographs showing the progress of an extension demonstration gives to the many who can not watch from week to week the demonstration itself a clear idea of how the demonstration is carried out and what are its results. Photographs make it possible for people to see at any season of the year what a demonstration is like, whether it is in growing a crop, feeding animals, making a dress, or rearranging a kitchen. The photograph has proven particularly valuable in showing before and after views illustrating changes, due to improvements or treatment. For example, the beautifying of the grounds around a house or improved feeding of a farm animal. Photographs of contrasting kinds of materials,

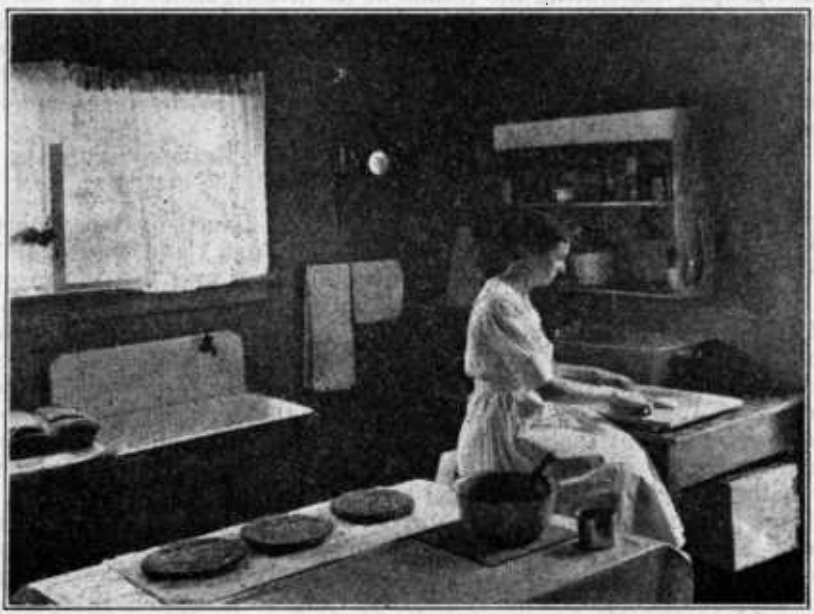

FIG. 173.—Farm woman in her improved kitchen. This picture answers the requirements for natural surroundings, costume, and action

methods of handling equipment, or types of animals are often helpful in driving home an extension lesson. It is found that extension activities such as tours, team demonstrations, contests, camps, and short courses are much better understood by the reader or listener when good photographs of them are used.

Interest Should Be Concentrated

Photographs used in extension education to be effective must be good photographically. They must show clearly the definite step in a process described. The eye should go directly to one center of interest in the picture and only one if the picture is properly taken. A photograph that has several centers of interest in it does not meet the requirement of a good teaching picture which is to tell clearly one definite thing. In photographs in which people are shown, the

surroundings, costumes, and action of the people should be appropriate and natural. (Fig. 173.) If the people in a picture have the appearance of doing something they are not used to or if they are dressed in clothes or are in surroundings not suited to what they are doing, it has been found better not to use the picture since it is not likely to be convincing.

The supply of photographs suited for use in extension education is growing steadily. The extension service of the United States Department of Agriculture has a reference file of photographs on farm and home subjects for the use of extension workers and cooperators of over 25,000 photographs. Its loan collection of 60,000 lantern slides comprises about 150 series of interest to farm audiences. Each bureau of the department, also, has its own specialized collection of photographs illustrating the results of its investigations in the teaching use of which the extension service cooperates. Supplementing these sources of photographs many of the State agricultural colleges maintain large collections of photographs and lantern slides, touching every phase of extension education relating to the farm and in the farm home.

REUBEN BRIGHAM.

PIG Surveys and Market Stabilization

The pig-survey reports issued by the department twice a year, as of June 1 and December 1, show the size of the spring and fall pig crops of each year as a percentage of the similar crop of the preceding year, and the number of sows bred to farrow the following season (fall or spring) as a percentage of the number actually farrowed the similar season of the preceding year. The survey of June 1, 1926, showed the size of the 1926 spring pig crop as a percentage of the spring crop of 1925, and the number of sows bred to farrow in the fall of 1926 as a percentage of the number actually farrowed in the fall of 1925.

Thus these reports have the dual character of "current production" and "intention to produce" reports. As such they furnish information from which can be estimated the probable seasonal market supplies of hogs. This is of great value to producers in making feeding and marketing plans. Indications of future production as shown by breeding intentions are useful to individual producers in deciding their own breeding programs.

The name "survey" instead of "estimate" is given to these reports because they are not estimates in the sense that crop reports are estimates or forecasts. The latter as issued by the department represent the judgment of the crop-reporting board after a study of all available data bearing on the respective items. The pig-survey reports give the results as computed from a tabulation of the returns made by producers covering their own operations. No attempt is made to modify these results on the basis of information received from other sources.

Post Office Department Assists

The procuring of the basic material for these surveys is a joint activity of the Post Office Department and of the Department of Agriculture. The survey cards are prepared by the Department