Contracts for deed, of which the number recorded is small, made up 12 percent of the sales. There was little noticeable change in the type of financing from last quarter.

Recorded cash sales with full consideration given, averaged \$8.13 per acre compared with cash and mortgage transfers at \$14.98 and purchase contracts at \$16.93. These wide variations exist in all counties except Traill where a single cash and mortgage sale was far less than the cash sales. The buyers equity in mortgaged sales was 54 percent and in contracts for deeds 15 percent.

Although insurance companies and individuals were almost equally important as sources of credit for the recorded mortgages and contracts for deeds, it is known that the Federal Land Bank and the Bank of North Dakota would also be a large source if all their contracts were recorded.

## **Boom Forces in Evidence**

Crops are good, agricultural prices high, bank deposits large, credit plentiful, interest rates low; and some farms have been paid for with a few years' crops. On the other hand, labor and machinery are not sufficiently available to allow wide expansion. People have been paying debts, some of which are the result of their land purchasing experience of World War 1 and the drought and depression of the thirties have not been forgotten.

Informants, however, do not expect a land boom but recognize that land prices are increasing and that there are factors operating that can easily push prices and sales to boom proportions. Purchase of over-valued land will result, as after the last war, in low returns on the investment, lowered standard of living, and possible foreclosure.

## Use of Soil Conservation Surveys in Farm Planning

## Ву

LLOYD SHOESMITH, Survey Supervisor Soil Conservation Service, U. S. Department of Agriculture

**THE FOUNDATION** for effective farm conservation planning is to fit farm operations as nearly as possible to the land's capabilities for use. Under this arrangement, the best land on a farm is used for necessary crop production and the less easily cultivated land and land of lower capabilities for crop production are used for pasture and hay production. Soil and moisture conservation practices to protect the land from erosion and conserve water, as well as the pattern of land use, are selected to meet the requirements indicated by the soil conservation survey.

Therefore, the conservation survey is the first step in good conservation planning. The accompanying conservation survey map (fig. 1) and the land use map (fig. 2) of the Nick S. Betchner farm, near New England, North Dakota, illustrate the application of the conservation survey information in farm conservation planning.

## NORTH DAKOTA AGRICULTURAL EXPERIMENT STATION

The conservation survey map (fig. 1) was made first. It is more than a soils survey map, as it also includes information on slopes and the amount of erosion which has occurred. This information is considered together with information about local precipitation and climate and several other factors to arrive at the land use capability classifications shown on the conservation survey map. The map of the Betchner farm shows three classes of land—1) land suitable for cultivation with the simpler conservation practices; 2) land suitable for cultivation with more complex or intensive conservation practices to protect it; and 3) land not suitable for cultivation but instead suitable for pasture with moderate restrictions in use.



Soils on this farm were found to be silty soils, except for one small area of fine sandy loam (field 21, fig. 2) and one area of clay loams (in parts of fields 14, 15 and 25, fig. 2). Erosion was found to be slight to moderate, with small gullies having developed in the cropland northwest of the farmstead.

All of the land classified as suitable for cultivation consists of moderately deep to deep silty soils on

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slopes of 2 to 7 percent. The land which was classified as not suitable for cultivation has slopes varying from 5 to 20 percent. The area of sandy soil was moderately wind eroded, while the stony loam is too rough and stony for erosion to be controlled if it were cultivated. Further, continued cultivation of this land would endanger adjacent, better class land.

With the conservation survey to guide them, the farmer and the farm planning technician get busy at the preparation of the farm conservation and land use plan (fig. 2). It may not be desirable to put all lands suitable for cultivation into crops, for the farm may not need that much land in crop production. Or, present farm needs may require temporary cropping of some land which ought not be in cultivation, until operations can be adjusted to fit the land. At any rate, the conservation survey map guides the farmer and farm planner in laying out the cropland, pasture and haylands, and in selecting needed conservation practices.

On the Betchner farm, some land suitable for cultivation but which had been in grass was broken out for cultivation. On some of the croplands, strip cropping effectively controls erosion, while on other fields contour strip cropping is necessary. Land not suitable for cultivation, critical erosion areas in the waterways, and irregular areas in the strip-cropped land were seeded to grass and a plan for using the grass was developed.

With this conservation and land use plan in effect, erosion is controlled and moderate to high yields of adapted crops can be maintained indefinitely.