preceded by settlement. Land settlement is a vast problem. There are times when further settlement means further output of products which cause increased intensity of competition on the market and contributes to still lower prices when they are already too low. The time for land settlement is when demand is large and supply is scarce. This is not such a time. However, when conditions become such that there is a real need for more production which would clearly present a profitable opportunity of farming marsh soils in a large and comprehensive way, so that there would result a volume large enough to support a marketing organization, then an effective system of merchandising could be set up.

To provide a marketable volume of marsh soil products on the areas referred to would require capable leadership to function along four main lines. First, a suitable settlement plan would have to be formulated. Second, financing in amount and terms to result in properly equipped and operated farms would be essential over a period of years. Third, production along definite lines would need to be undertaken so that a product of sufficient volume, rigidly standardized along high quality lines would result. Fourth, a cooperative marketing enterprise of real effectiveness would need to be set up to function for the disposal of all crop output.

To carry into practice work referred to in the four lines would require subject matter that may be tapped from every part of the Wisconsin Experiment Station and other State Departments related to agriculture and marketing.

PROVING THAT DRAINAGE IS PROFITABLE

P. H. Hintze

The assignment of this topic to me was the result of a conversation between Mr. Jones and myself in which he asked me about a hundred acre farm, all drained marsh, that Mr. Dahlen and myself are developing from the raw stage to the finished product.

We, jointly, bought the undrained land, and with the help of others, prepared and circulated the petitions and did the engineering work necessary to complete the project. This particular one hundred acre tract is located in the Blooming Grove Drainage District, which district contains about one thousand acres of actual marsh. The drainage of this district was completed about four years ago. It was estimated to cost about $15 per acre for drainage, but due to the fact that the contracts were let at the peak of war time prices, the ultimate cost will be approximately one third more, or about $20 per acre.

The price paid for the land was high for that class of marsh land due to the fact that it is only four miles from the City of Madison. With the exception of about 900 feet of 8 inch tile laid, the drainage is accomplished entirely by the main ditch and one lateral ditch, both of them being open ditches. These open ditches give about 7 feet of drainage to all this land.

During the autumn of the second season after the drainage was
completed this land was plowed with a tractor and one of the large marsh plows. The next season corn and flax were put in, but owing to the short, wet season the corn did not mature and the flax was very weedy. The crops raised were not very promising and the returns just about paid the price of the plowing. However, the fact that this first crop was not very successful did not discourage us as the crops all thru this immediate section were about on a par with the marsh crops. So the next season, which was the season of 1925, we sowed 20 acres to Alsike clover and timothy and put approximately 60 acres into corn. We did this without plowing, just going over the land with disc and drag. However, I think we should have been money ahead had we plowed the land again as our corn was very weedy. But the harvesting of the crop showed that we had obtained approximately 50 bushels per acre of very good Golden Glow corn from the 60 acres of land. I expected to be able at this time to give some exact figures on the total cost and the total returns connected with the raising of this crop, but in as much as we are still holding the corn I do not know what the selling price will be. I can give an idea of what work was necessary. One man with a Moline tractor did all the work except the planting, to the end of the cultivating period. The husking was done with a team, one man and a boy helper part of the time. So far there has been 35 acres husked which yielded 1750 bushels of corn.

The results of our attempts to utilize this land for crops leads to the conclusion that the land is on a par and even exceeds, in certain crops grown, the high lands in this vicinity. So, ultimately, when it has lived down the stigma of its lowly origin, it will take its place as a farm along side the surrounding high land farms. When that time comes it will be recognized as being worth about the same as other farms in this vicinity.

Now, as to proving drainage is profitable—if we take what we have done as an indication of what can be done right along over a period of years—I think we can prove that drainage is profitable as compared with other farms. If you consider other investments such as Florida and California real estate propositions, the returns from any farm is apt to look small, but, in these propositions the element of uncertainty enters into it to such an extent that the average person calls them speculations instead of investments.

We all know that a very large percentage of the farms throughout the country today are not earning an actual 6% above all expenses on the investment. Part of this is justified by the fact that the farm is a very safe investment, increasing in value from year to year and providing a place upon which a man has a home, rent free, with employment as steady as the farmer wishes to make it. If any farm is worth owning as an investment, surely a marsh farm is. The land is so rich that only the man that knows nothing of crop rotation can deplete it.

So, if the average marsh farm owner will select the crops which newly drained marsh will grow best and will watch that he does not
become overloaded with diversified equipment—he can earn good interest on his investment. At the same time he will, by his efforts, produce as fine a farm as there is in the vicinity at the end of a few years.

Finally, to sum up the situation in a few words—he buys cheap land which when drained does not represent an investment as great as the ordinary farm; he grows as large or larger crops as the ordinary farm at less cost per acre; and when he sells, he sells at practically the same prices as the ordinary farm. That is the proof that drainage is profitable.

IOWA STILL DRAINING
James A. King, Mason City, Iowa

Our Iowa drainage problems are somewhat different in some respects from what you have over here in Wisconsin. And yet, in the more basic features they are identical. The first difference is that our soils are predominatingly clays and clay loams; we have little or no sand, and peat only in small and isolated cases or spots. The second difference is that we have but very little idle or unused land; ours is all in farms that are occupied and used in some manner or other. Again, our lands have a higher market value than have yours; the range is all the way from $100.00 to $250.00 an acre—even today after the boom has all subsided and before we have gotten very far back on the return trip in values. This gives a materially higher acre carrying charge than what you have for interest and taxes. Because of the difference in soil types the acre cost for complete drainage is much higher with us than with you, as thorough tiling is necessary to give us complete drainage.

And yet our problem is the same as yours in the great underlying, basic necessity that our agriculture must be profitable. In fact our problem in this respect is even heavier than yours because we have the larger load of carrying charges—interest and taxes—to earn out of the land than you have to carry. But still our problem is the same in principle;—different only in degree, if in anything at all. To be successful and permanent, to be attractive to men and women to take it up or to stick to it, agriculture must be profitable.

Up to the present time the great bulk of our Iowa farm fortunes have been made out of the rise in the market value of the land. A farm family could just manage to get along, make a meagre living and manage to meet their interest and taxes, and by the time they were ready to retire they would have accumulated a good competence in the rise in the market value of their lands because the country was getting settled up with the consequent increment in land values. How great would be the amount of wealth accumulated by such a farm family depended on the acreage which they had managed to hold.

But that time is now gone. The bulk of the increment in farm land values that is possible has already been cashed in. The farmer of this and future generations in Iowa is confronted with the mighty big problem of making any wealth he accumulates out of the profits