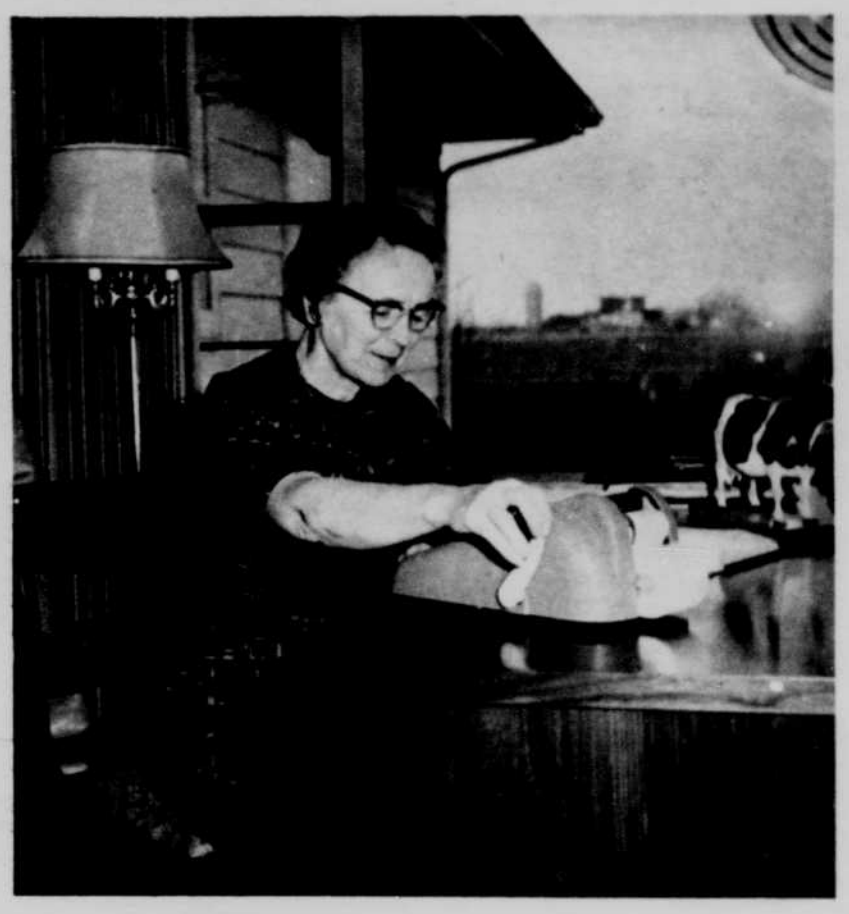
1954 — Tore down the old house that stood here and put up this attractive, modern farm house. Mrs. Knutson is the official bookkeeper.



THE PAY-OFF IS IN THE . . .

Systemized farming, which includes the orderly growth of farm automation, is becoming the most important means for achieving success on today's farms. TOP FARMER asked Dick Walburn of Badger Northland, Inc. (one of the Country's leaders in farm automation) to tell us what is causing this big surge in farm automation, what are some of the problems to consider and what can be expected in the future. Here are some of his comments:

"Necessity is the mother of invention" . . . and necessity brought about mechanization on the farm. Two factors were chiefly responsible . . . one was the shortage of hired help that existed after World War II, and the other was the cost-price squeeze that evolved during this period.

Dairy farmers were the first to mechanize, adopting the barn cleaner to do their cleaning. Mechanized feeding was not as readily accepted by the dairy farmer as the beef farmer; however as herds have grown larger, mechanized feeding has become more important. Without mechanization, these two chores took a good portion of the working day (in addition to being a back-breaking job) and limited the number of animals one man could manage properly. When the price of milk dropped, a farmer had but two choices if he wanted to stay in business: (1) Increase his production or (2) Lower the cost of his present production. Either way, he had to mechanize.

Beef farmers have been faster to adopt mechanized feeding than dairy farmers. They were hard hit by the cost-price squeeze of the 50's, and mechanical feeding was one of the solutions to their problems. Greater silage utilization has developed in an effort to cut the cost of gains, plus supply consumer demand for leaner meat.

The advent of high moisture corn storage, in concrete or steel silos, has done much to advance the cause of stored feeding programs. Feeding beef animals at a medium or high level of silage, plus a proper amount of corn and protein supplement results in a carcass grade that is little below that of animals on a high energy ration. Feeding silage not only allows a farmer to produce meat at a lower cost but allows him to raise more meat per acre.

Hog farmers have been the last to enter into mechanization. Mechanized feeding and cleaning would have reached them eventually; however, their entry was hastened by the market conditions of 1959 and '60. Hog producers turned to confined feeding and farrowing programs, and slanted their efforts toward producing leaner meat at lower cost. Self-feeders and overhead grain augers have become very popular. Manure removal has remained the hog farmers' big problem. Although some lagoons have proved successful, many problems remain unsolved. Badger Northland dealers have installed both barn cleaners and augers in hog houses for removing manure, and both have proved successful. Current trend in hog manure removal is through the use of lagoons. This method results in the loss of the manure and also creates a dispersal problem of the effluent. Pollution of neighboring streams, surface as well as underground, seems to be inevitable with this method of removal and it is doubtful if the public will tolerate lagoon operation over a period of time.

1960 — Built the large loose housing pole barn shown in the rear . . . the first step in a well-planned feeding and milking area.

TOMORROW'S FEEDING METHODS

Dairy

Very limited pasturing will be used, probably only on land that is suited for little else. Haymaking on a large scale will not be practiced unless means are found to distribute this feed mechanically. Limited hayfeeding will be done in self feeders. Pelleting of feeds is not too apt to become common practice unless more economical means of pelleting can be devised. Low moisture grass silage and corn silage will become the two most important feeds to a dairyman. Oat silage will also become more widely adapted by dairy farmers. Dairymen using high energy, high protein silages will probably cut the amount of grain and concentrates they presently use. Free stall housing, a recent development, will replace loose housing, and many stanchion barns. Indoor feeding with mechanical bunk feeders will become common practice on free stall setups; however the trend to outside feeding should continue strong. A mechanical method of distribution will probably be developed for "in-stall" feeding. All feeding will be done mechanically. A single man operation will produce 1,000,000 lbs. of milk. Fully mechanized, one man will be able to manage 65 to 80 milk cows. Many of these operators will have their heifers raised by contracting.

Beef

Confined feeding will be used in every phase of beef operations, from brood cows to finished