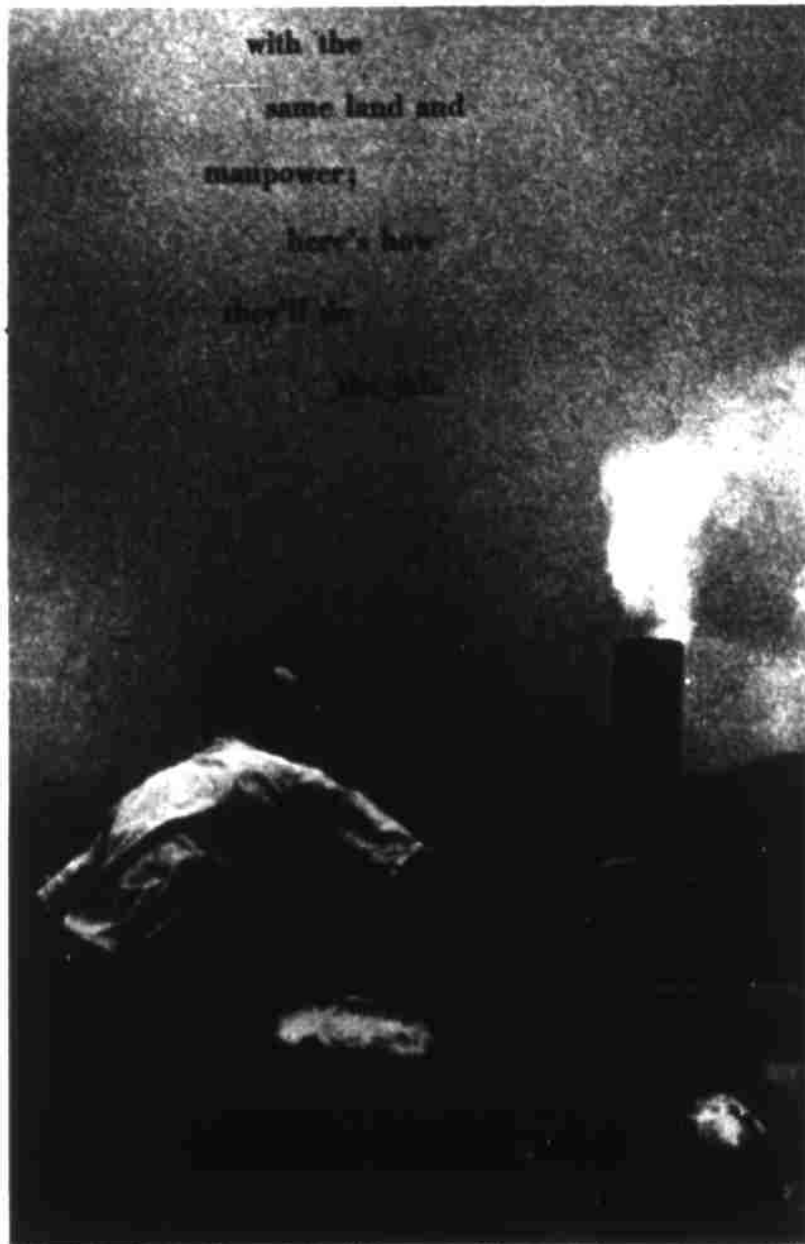


What's Ahead for America's Farmers

By 1977 they'll be
feeding 50 million
more Americans

by Jack Ryan



with the
same land and
manpower;
here's how
they'll do

Cloud seeding is still experimental, but some claim it can bring rain, stop hail.

THE FARMER OF TODAY shrugs into a jacket and calls to his wife, hard at work in the kitchen, "I'm going to take a look at the south forty. I'll be right back."

That "look" sounds deceptively simple. Often it means hard hours replanting, cultivating, and fertilizing his acreage, or, far worse, a hopeless battle against soil ravaged by drought, insects, or disease.

Tomorrow's look will be far different, according to agricultural researchers. Some believe the farmer won't even go to his land—it will come to him on conveyor belts. And if it needs fertilizer, a push of a button will release the proper amount from overhead storage bins.

Drought? That, too, will succumb to the push-button age. Moisture, tapped from faraway reservoirs and carried by nuclear power, will be sprinkled in precise amounts from an automatic watering system. Plastic roofs over the crop assembly line will protect the soil from too much natural rain.

Yes, that's the long-range forecast for tomorrow's "farm factory." Most crystal-ball gazers, while agreed that important changes are on the way, describe our future agriculture in more conservative terms.

They foresee changes that will bring greater efficiency and less risk to the farmer and, in turn, assure him adequate profits each year. These changes will make it possible to feed 229 million Americans in 1977—some 30 percent more than now—without any increase in farm land or manpower. In addition, the same acreage and labor force will supply our burgeoning industry with tremendous amounts of raw mate-

rials, some virtually unknown today.

If successful, industrialized farming would not only stabilize agriculture, a bulwark of our economy, but would hold food prices at reasonable levels.

Of course, turning theory into reality won't be an easy job for the farmer. Researchers believe he can come close to the ideal only by streamlining his business and marketing techniques and improving crops, animals, and machinery.

The first step will be to reduce the gambles he must take on prices, weather, crop and animal diseases, and other variables that cause heavy losses and waste. As one business consultant says, "If big business took the blind risks our farmers do, the increase in ulcers alone would cripple our economy."

TOMORROW'S farmer will play the "sure thing" as much as possible. As an opening step, he will keep special reports on such items as soil, yield, expenses, capitalization. Before planting any crop, he will bring this data to an accounting office; it may be a private business, part of a farmer's cooperative, or a division of a giant farm corporation.

Electronic computers will balance the farmer's report against market prospects, costs, transportation. The result will be a fairly accurate analysis of what crops should be planted to assure the best return and help avoid surpluses and shortages.

But even an electronic brain is worthless when its computations depend on fickle Nature. Storms, insects, disease, and related hazards lay waste to 120 million acres a year—acres in which the nation has in-