

The face of agriculture has changed. In 1930, there were over 19 million horses and mules on American farms. Now there are so few that we've stopped counting them. Total manhours required in farming have decreased from 23 billion in 1930 to less than 7 billion today. However,



output per manhour has nearly tripled in the past 20 years. The industry's demand for more capital, better management and the latest technology has spawned a new generation of farmers. They are skilled professionals, better educated and more informed than ever before.

**The American Farmer**

# Modern Inputs Replacing Farm Labor

(Editor's note: This is the fourth in a series of articles on American agriculture. The series is provided courtesy of DEKALB AgResearch, Inc.)

Half a century ago, agriculture's major inputs were land and labor. Higher production normally brought higher profits, and the way to higher

production meant putting more labor to work on more land.

Now, however, land and labor are both limited and expensive. And, as such, they have been overshadowed in importance by three other inputs — capital, management and technology.

"Extensive" farming — the putting into production of more

acres — has been replaced by "intensive" farming — getting more production out of the acres available. This has created the demand for capital, management and technology. These three inputs hold the key to future increases in agricultural production.

The capital requirements of the

average American farm are by no means small. Consider that an acre of land may cost \$1,000 or more. Or that the cost of a new tractor often exceeds \$10,000. Add to this the thousands of dollars needed each year to cover operating costs — fuel, fertilizer, etc. — and the total often reaches several hundred thousand dollars.

It's obvious that most farmers cannot by themselves take on the job of financing their operations. They have to turn to other sources for credit.

According to the 1971 Fact Book of U.S. Agriculture, "In recent years, credit has been used to finance four-fifths of all farm sales. Federal land banks and life insurance companies are the largest institutional holders of farm mortgages, with outstanding balances on January, 1971 of \$7.1 billion and \$5.6 billion respectively. Commercial and savings banks held loans of \$4.4 billion."

The American farmer is also a heavy user of non-real estate farm loans. He uses these mainly to finance seasonal production costs and living expenses. The Fact Book reports, "In 1971,

about \$12.3 billion of the non-real estate farm debt was owed to merchants, dealers, individuals, and other miscellaneous lenders and creditors. Commercial banks, which supply the most non-real estate credit to farmers, held outstanding loans of \$11.1 billion."

It's an ironic cycle — credit is necessary if the American farmer is to maintain or increase his efficiency. But because the use of credit increases his operating costs through interest payments, it is even more imperative that his operation be efficient ... to offset the increased costs credit brings to the operation.

Management is the second important new input. In simple terms, management means making the right decision at the right times.

Modern farming is full of decisions. It's more than pulling a plow behind a tractor or throwing a bale of hay onto a wagon. It's deciding when to sell, what to buy and which way to speculate. The decisions hold the potential to keep a farmer in business ... or to put him out. They're often lonely decisions.

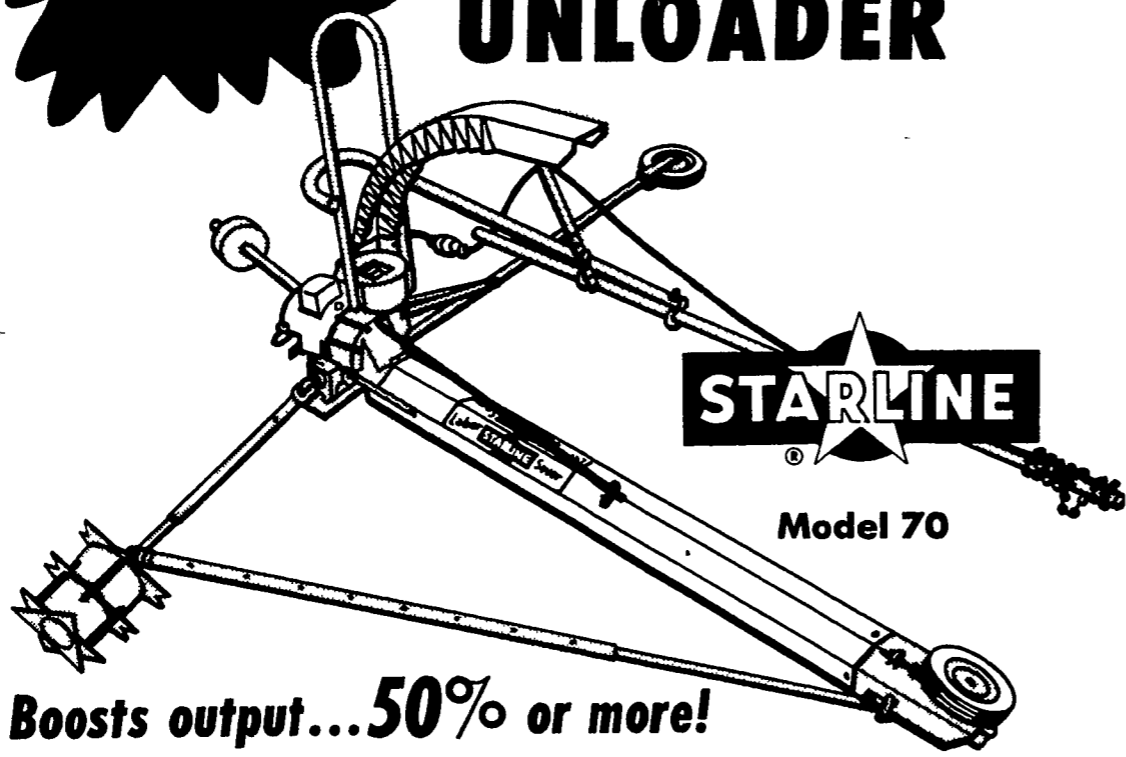
(Continued On Page 8)

## AGWAY



high-speed...high-capacity

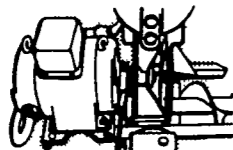
### SILO UNLOADER



**STARLINE**

Model 70

Boosts output...50% or more!



Direct motor to rotor drive increases throw power



Exclusive auger design increases capacity

Now, you can cut your unloading time 50% or more with the powerful, new Starline Model 70 Silo Unloader. Secrets to its unmatched performance are faster-than-ever auger and impeller speeds, plus a new concept in auger design ★ Auger turns 4-times faster than ordinary unloaders. ★ Impeller spins at actual motor speed (1725 R.P.M.). ★ Auger diameter steps up one-third in size beneath the impeller to increase silage velocity 50% as it enters the rotor. Want to know more? Stop in or call us.

20 x 60 INSTALLED UNLOADER PRICE WIRED TO BOTTOM OF SILO WITH 7½ MOTOR **\$1675.00**



1027 DILLERVILLE ROAD, LANCASTER, PA. PHONE 717-397-4761

NOW OPEN FRIDAY NIGHTS 'til 9 P.M.

## INCREASE YIELDS \$15.00 AN ACRE FOR 25¢



ORTHO ISOTOX® Seed Treater (F) is backed by the best kind of proof a corn seed-treater could have: over one hundred million successful corn acres. All kinds of climate. All types of soil. All sorts of men doing the planting. Yield increases run up to fifteen dollars an acre—from a product that costs about 25 cents to treat a 20,000 plant-population-acre.

CHEVRON CHEMICAL COMPANY, ORTHO DIVISION, San Francisco, CA 94120 Helping the World Grow Better®

TM'S ORTHO, CHEVRON DESIGN, HELPING THE WORLD GROW BETTER, ISOTOX — REG U.S. PAT. OFF. IN ALL CHEMICALS READ CAUTIONS, WARNINGS AND DIRECTIONS BEFORE USE.

**P. L. ROHRER & BRO., INC.**  
Smoketown, Pa. Ph. 397-3539