

## ABS expands genetic research

DE FOREST, Wisc. — American Breeders Service announces plans to contract as many as 30 "super" genetic cows within the next two years for the purpose of evaluating the genetic merit of identical twin bull calves through its industry leading progeny test program.

"These identical twin calves, produced by embryo splitting, will be among the highest pedigree-indexed young bulls in the breed," explains Robert E. Walton, president, American Breeders Service. "Our original intent will be to progeny test a significant number of sets of identical twins to gain concrete data proving in-

identical twin bulls transmit identical genotypes. There is strong evidence to that effect — this project will also give us the necessary information to make more accurate evaluation of these bulls through our progeny test program," he remarks.

Project plans call for ABS to work closely with the University of Wisconsin-Madison in developing state-of-the-art research in genetic improvement, embryo transfer and the production of identical twins through a variety of techniques.

The joint ABS/University of Wisconsin research project will be

funded by W.R. Grace & Co., ABS' parent company. Grace's financial support is in keeping with the firm's continuing efforts to stimulate biotechnology research in all areas of efficient food production. This specific project applies directly to the genetic improvement of future generations of livestock.

ABS' main involvement will center around the ABS research staff gathering embryos on the farm from specially mated ABS contract cows for the sole purpose of producing identical twins to enter the ABS progeny test program.

These embryos will be micro-surgically divided and each section will be transferred to its own recipient located at the U.S. Dairy Forage Research Center, Prairie du Sac, Wisconsin, — the entire procedure to be completed within 12 hours of recovering the embryos. All identical bull calves that result will become part of ABS' young sire program. Heifer calves will join the U.S. Dairy Forage Research Center herd to benefit that operation's future forage research. Like the bulls, these

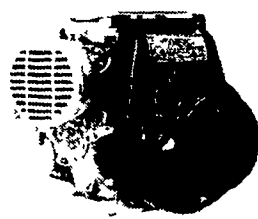
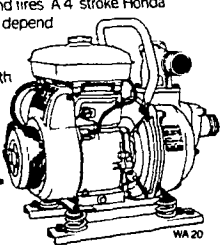
heifers will be of high genetic merit and will greatly enhance the understanding of forage utilization by high milk producing dairy cattle.

"Long term, we believe we will have better bulls available for widespread A.I. service through the sampling of identical twins," says Walton. "This program, combined with our current rate of sampling young sires, can definitely speed up improvement in the genetic merit of the sires we offer."

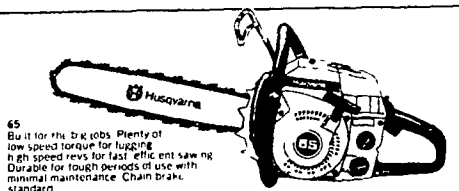
### EMERGENCY PUMPING POWER.

Honda self-priming water pumps are valuable friends in emergencies like floods and fires. A 4 stroke Honda engine makes them rugged, dependable, quiet and economical. There's a 2" pump, and for really big jobs a 3" pump with a 290 gallon per minute capacity.

IT'S A HONDA



HONDA



Get cutting like a pro with Husqvarna

WE ALSO HAVE USED MAYTAG WRINGER WASHING MACHINES & PARTS WITH HONDA MOTORS MOUNTED OR WITHOUT ALSO LARGE SUPPLY OF BOLTS

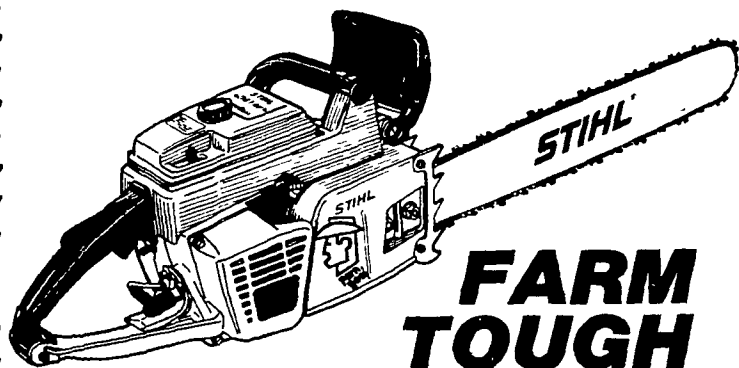


HOUSTON RUN SALES & SERVICE

Amos L. Stoltzfus  
HUSQVARNA & POULAN CHAIN SAWS  
HONDA MOTORS

Bx 67, Hensel Rd., Kinzers, PA 17535

### FARM TESTED —



FARM TOUGH

Need easy starting? Simple maintenance? Rugged durability? A saw to handle the toughest jobs in the field, woodlot and farmyard? You've got it with Stihl® Farm Boss™. Now available with Stihl's anti-vibration system for easier operation, and Quickstop® Chain Brake.

STOLTZFUS WOODWORK

RD Gap, PA Box 183  
1 Mile North Rt. 897 From Gap

MARTIN HARDWARE & EQUIPMENT CO

Rt. 501 1 1/2 Miles South of  
Schaefferstown, PA  
Phone 717-949-6817

A & B SALES & SERVICE

2 Miles South of Rt. 23 Along 772  
Thru Monterey - RD 1 Ronks, PA

WES STAUFFER SMALL ENGINES

RD 3 Ephrata, PA Phone (717) 738-4215  
Ephrata Exit New Rt. 222  
1/2 Mile West on Rt. 322,  
Turn left onto Pleasant Valley Rd

EBLING'S LAWN & GARDEN

Myerstown  
717-866-6780

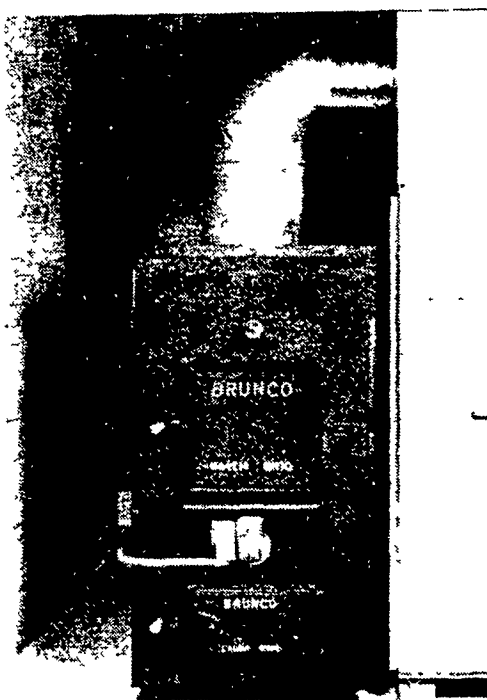
Bethel  
717-933-8192

STIHL®

THE WORLD'S LARGEST SELLING CHAIN SAW

### BRUNCO

Supplemental or Independent  
Warm Air Furnace  
Burns Wood or Coal

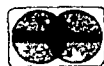


Includes the following for easy installation: wall thermostat, 24 volt relay, fan limit control, draft fan and distribution fan.

Bowman's Stove Shop, Inc.

R.D. 3, Napierville Road  
Ephrata, PA 17522  
Follow the signs from  
the Light at Hinkletown

Tues., Wed. 9-5;  
Thurs., Fri. 9-9; Sat. 9-4;  
Closed Monday



717-733-4973



### WINTER SALE WHILE SUPPLY LASTS

### MEDICATE YOUR FARM ANIMALS ACCURATELY

Simple valve adjustment permits wide range of proportional settings...



\* NO CORROSIVE PARTS

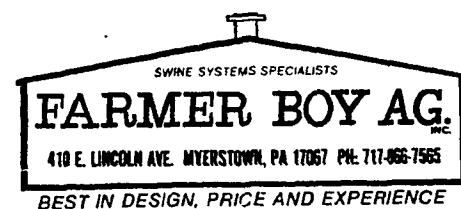
\* NO POPPETS OR PUMPS

\* NO MOVING PARTS TO MAINTAIN

3 Gallon Medicator Special Price - \$100.00

Medicator

MEDICATION PROPORTIONER



410 E. LINCOLN AVE. MYERSTOWN, PA 17067 PH: 717-866-7565

BEST IN DESIGN, PRICE AND EXPERIENCE

### A Natural Mastitis Treatment That Works

It is rich nutrition in the feed. Costs only about \$2.75 per day, 2 feedings usually knocks it out except in old prolonged cases. Even those sometimes when drugs have failed. It is Light Force Spirulina, an algae that grows on water. Extremely rich in vitamins, minerals, trace elements, amino acids, chlorophyll and enzymes. It supplies the missing elements. Makes cows resistant. It is double purpose - nourishing

the cow and treating the cause, not just the udder or symptom. Farmers say helps improve sick cows in a few hours. Plenty good repeat orders prove that this mastitis treatment works. We also have another good natural product to use with it for stubborn cases. No milk throw away with either product. Dealers wanted for these becoming popular products.

200 Tablets... \$18.95 Postpaid

### ORGANIC CENTER

717-354-7064

217 S. Railroad Ave. New Holland, Pa. 17557

OUR PHOSPHATE IS EXCELLING

More protein in crops - 27.7% in haylage, 1/3 more sugar in juice of corn in August. More minerals and trace elements in better balance - better feed efficiency, more milk reported. Unidentified factors in feed-less livestock problems - less vet bills.

Less bugs and disease - healthy crops resist scavengers - less or no insecticides needed. Better flavor, keeping quality and frost resistance in vegetables - more No. 1 grade and size. Looser soil and subsoil - less runoff-holds more water for a drought. A sponge holds more water than a brick. Larger, healthier root systems - less lodging.

Less tillage costs obviously on loose, crumbly soil

To top it off, our customers crops are also excelling in quantity. And all this with \$105 per ton phosphate, very high in phosphorus and calcium and minerals and lasts for years. Apply less often than lime. There is much to say in free literature. We also handle Sea Kelp an excellent foliar spray, Nat. Ag Soil Treatment for looser soil. In the cows as well as the soil, we are proving it best to treat the cause of crop bugs and mastitis bugs, rather than spraying crops and drugging udders. Our repeat business is growing rapidly in both lines, which proves our philosophy. We are getting so busy we need another good organic minded employee at this shop. Send us a prospect that can do office work also.

**BOTH IN LIVESTOCK AND CROP PROBLEMS, OUR CUSTOMERS ARE PROVING IT IS BETTER TO TREAT THE CAUSE THAN THE SYMPTOM.**