

# Livestock Notes

## IMPROVING YOUR COW/CALF HERD

Scott M. Barao

Extension Livestock Specialist  
U. Of Md.

Too often, beef cattle breeding plans do not receive proper emphasis. Genetic improvement is slow, and usually costs money either in the form of keeping the best animals within a herd, or purchasing a good herd sire. But genetic improvement is important, regardless of the objectives for a herd.

Naturally, purebred breeders must become involved with good recordkeeping programs. They should use these records to select male and female replacements from within their own herds or in purchasing replacements from other herds. The genetic ability of replacement cattle in a strictly commercial herd has a tremendous effect on net profit and pride of ownership. The cattle business is just like any other business; there is a better chance of a person sticking with, enjoying, and continuing to improve a business if it involves highly productive units. Cattle are like cars — each breed of cattle has different capabilities, and there are "lemons" and "per-

formers" within each breed of cattle and each make of car. Also, there is no one breed of cattle, nor make of car, that performs every assigned task better than every other breed. There is no one breed of cattle that has the most desirable milk production, the most rapid growth rate, the highest quality carcasses, the highest bull and cow fertility levels and the easiest calving records.

Often a bull consistently sires calves weighing at least 50 pounds more than calves sired from another bull that is within the same herd, bred to the same cows, and fed and managed alike. For most commercial breeders, the weaning weight of the calf determines the gross sale price of the calf crop. The purebred breeder must be concerned about the performance (particularly weaning and 365-day weights) because it is from the purebred breeder that any further improvement in genetic ability is made to benefit the rest of the industry.

### What Characteristics To Improve?

Attention in any breeding program must be focused on the following traits.

Reproductive ability is the abil-

ity of a cow or bull either to become pregnant or to cause pregnancy in females within 45 to 90 days after last calving. This trait usually cannot be improved much by selection within a breed, but is improved with crossbreeding.

Calving ease means that the bull will not be too large for the cows, and will not have coarse muscling or coarse bone. Although a breeder may consider breeding virgin heifers to a large bull, this is not recommended except in specialized, outstanding purebred herds.

Structural soundness includes straightness and correctness of feet and legs, lack of extreme muscling (particularly important in some of the larger breeds), femininity in females, masculinity in males, size and condition of the testicles, teat size and shape in producing females, and straightness and balance indicating an animal will be a longtime producer. In the past, cattle producers have overemphasized some unimportant components of appearance; however, some appearance items still reflect an animal's productivity.

Calf weaning weight reflects a cow's ability to milk and to mother, as well as the inherent growth rate of the calf. Specialized programs involving beef-dairy crossbred cows will produce relatively large quantities of milk, and using large breeds of sire can bring about large increases in

weaning weight.

Yearling weight indicates the ability of the calf to grow rapidly and efficiently before and after weaning. This trait is of high heritability, which means that selection of breeding stock on yearling weight will bring about relatively rapid progress.

Any product produced must be sold, although almost any type of beef produced in the past has had a market. Generally, carcasses of higher quality grades bring more money when sold. However, if too much fat is required to reach a high grade and this fat requires a large amount of feed, then it is debatable whether producing this type of carcass is economical for either the commercial cow-calf operator or the cattle feeder. Over recent years, the demand for quality carcasses with lesser amounts of waste fat has increased.

### Using Performance Records To Select Replacements

Many purebred breeders obtain accurate performance records on the cattle they produce. These records should be used to decide which animals within a herd are to be purchased or kept as replacement bulls or females. In Table 1, weights at weaning time and at about age 1 year were adjusted for age of the animal and age of the dam. These adjusted yearling and weaning weights are listed for six bulls born within the same herd during the same season, and fed the same ration from weaning until age 1 year. The adjusted weaning and yearling weights of each of the six bulls are given. In

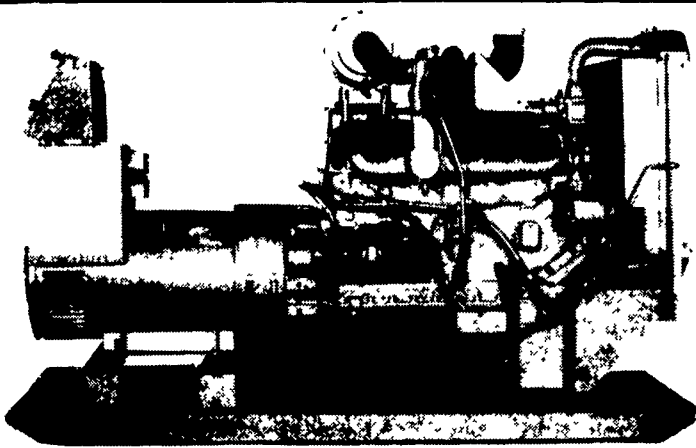
addition, there is a ratio for weaning and yearling weights on each bull. These ratios compare each individual animal with the average of all six bulls. As an example, the weaning weight for bull number 4 was 92 percent of the average of all six bulls (538 pounds). The yearling weight on bull number 4 was only 93 percent of the average yearling weight for all six bulls. Therefore, he would not be a good bull to consider for a breeding program of any type.

On the other hand, bull number 5 had a weaning weight ratio of 112 percent and a yearling weight ratio of 112 percent. He was 12 percent above the average weaning and yearling weights for all six bulls. Heritability estimates of growth tell us that he should pass on 1/3 to 1/2 of this 12 percent superiority to the calves that he sires in a herd.

Performance ratios allow more accurate comparison of two or more animals raised in different herds. Actual or adjusted weaning or yearling weights should not be used to compare animals from different herds because of the wide variety of feeding and management conditions between herds. However, an animal that has a high weight ratio in one herd will most likely have a high weight ratio if raised in a different herd.

Records on the cow herd become even more useful after several years of recordkeeping, since the lifetime production of cows and bulls in the herd can be used to cull cows and compare bulls, and to provide additional

(Turn to Page D6)



Automatic Systems

NEW

USED

- |                  |                  |                  |
|------------------|------------------|------------------|
| 1 - 30 KW LP Gas | 1 - 10 KW Gas    | 1 - 85 KW LP Gas |
| 2 - 50 KW PTO    | 1 - 15 KW P.T.O. | 1 - 60 KW Diesel |
| 1 - 60 KW PTO    | 1 - 10 KW P.T.O. |                  |

24 HR SERVICE

## MAXI-POWER

RADIO DISPATCH

330 Fonderwhite Rd. Lebanon, PA 17042  
717-273-4544 1-800-272-MAXI

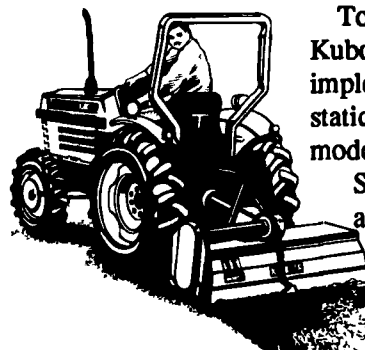
## WHAT'S IN A NAME?



When it's a Kubota — everything! Legendary performance, unmatched versatility and

superior operation are the trademarks of a Kubota tractor. And the new powerful line of Kubota L-Series tractors, from 20.5 to 49 PTO horsepower, continue the tradition.

Fully equipped with features such as direct-injection Kubota diesel engines, wet disc brakes and 8 forward and 8 reverse speeds. These sturdy farm tractors are available with different options, such as a standard transmission or a Glide Shift Transmission (GST).



To handle all your farming needs Kubota offers a superior selection of implements and accessories, hydrostatic power steering on 4WD models and a roomy operator's seat.

So if your business is farming, ask for the quality tractor by name — Kubota L-Series.

# Kubota

YOUR FULL LINE KUBOTA PRODUCT HEADQUARTERS  
• INVENTORY • PRICE • KNOWLEDGEABLE SALES STAFF  
• SERVICE EXPERIENCE

OVER 100 NEW KUBOTA TRACTORS IN STOCK!

## KELLERBROS. KUBOTA

FINANCING OR CASH DISCOUNTS AVAILABLE

WE SHIP PARTS UPS DAILY

TRACTORS & EQUIPMENT  
Serving Central PA Since 1921

CALL FOR DETAILS ON LEASING

LEBANON

Rt. 97, Box 406, Lebanon, PA 17042  
PL 419 1 mile West of Schuylkill

717-949-2000

STORE HOURS  
MONDAY-FRIDAY 7:30-5:00  
SATURDAY 7:30-12:00

2 Locations

LANCASTER

1980 Fubille Pike, Lancaster, PA 17601  
At Route 30 & Fubille Pike

717-569-2500

PENNSYLVANIA'S LARGEST KUBOTA DEALER

## INEXPENSIVE SOLID SET IRR. PVC HOOK & LATCH

BY DIAMOND PLASTICS

PVC Hook & Latch is 1/2 price of aluminum pipe. It is also lightweight and durable. Large quantity of PVC, new and used aluminum pipe in stock.

### THIS MONTH SPECIAL:

Used 90 TI BAUER travelling gun. Like new 3"x985' hose, speed compensated, turn-table, and auto gun cart load. Ready to go. \$17,000.00

- \*Sprinklers
- \*Engine & PTO pumps
- \*Gaskets
- \*Drip & Overhead Irr.
- \*Design & Engineer

- \*Filters
- \*Layflat
- \*Fittings
- \*Plastic Mulch
- \*Guns



WaterGate

Call or write for information and prices.

### RAIN-FLO IRRIGATION

884 CENTER CHURCH RD.

EAST EARL, PA 17519

(215) 445-6976



BUY, SELL, TRADE OR RENT THROUGH THE CLASSIFIED ADS

PHONE: 717-626-1164 or 717-394-3047