

Breeding Stock Selection

Patricia F. Lee—Lee Buffalo Farms Reprinted from "Buffalo Producer's Guide to Management & Marketing"

The bison industry is in its' infancy and little research has been done. Bison saw a bottle neck in the gene pool as they became nearly extinct in the late 1800. Genetic drift does occur and bison are once again repopulating and with diverse characteristics. However, there have been no detailed parentage records, no bull test stations, no major studies on conformation and "the perfect buffalo". Until very recently, nature made the selections and survival traits have been the basic genetic principles.

Today with many herds being small and raised without the influence of "survival of only the fittest", inbreeding and other characteristics are beginning to show up. Management and breeding stock selection are now necessary for those of us that own small herds on few acres.

In The Wild

In the wild, the young bulls are run out of the immediate breeding herd by the older bulls. Only the biggest and the best of the bulls will remain to breed. Younger bulls will go off until mature and then will have to fight to gain a herd. On thousands of acres, the young bulls will likely not

be breeding a sister or mother. Only cows in good condition and with good mothering abilities will survive to raise young. If forage is limited, this will weed out even more of the marginal buffalo.

Domestically Raised Bison

Herd management should help retain those qualities that nature would have shown a preference for. By selecting the *best of the best* continually and culling for only top bison, you will eventually have a top breeding herd. Bring in new young bulls and don't let shires breed too long in the main herd.

Even good nutrition will point out the top performers without starving the herd to find them. In fact, it will give the genetics a chance at full expression and in a generation or two you can see your differences more clearly.

Normally you would select for size, vigor, gain on feed, reproduction frequency and ease, conformation of calves, and perhaps some of you are selecting for meatiness (a wider rump). To select for personality or temperament is

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LOLLI BROTHERS—6-day Exotic Animal Sale and Buffalo Auction

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Jim & Dominic Lolli, Auctioneers

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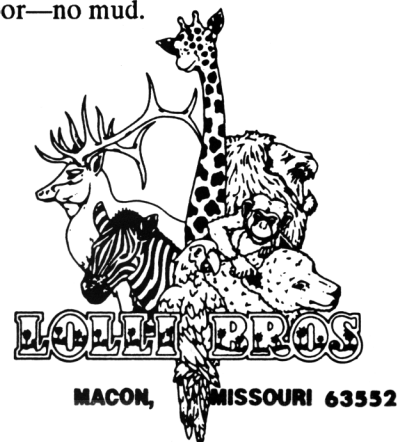
Special Buffalo Sale will be held Wednesday, September 26th. Expecting 100+ head buffalo, consisting of bred cows, breeding bulls, trophy bulls, cow & calf pairs, yearling heifers and bull calves. Before selling any buffalo, check our orders and prices first. If you are thinking about selling your buffalo, **consign early for top national advertising.**

All buffalo will be brucellosis and tuberculosis tested. We have a testing station for testing before the auction. Facilities are available to hold your buffalo before or after the sale. All steel pen and cement floor—no mud.

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Lolli Brothers are not responsible for casualty or injury to buffalo or exotic animals while on the premises.

SALE TERMS: Cash, money order, personal check accompanied by guaranteed bank letter of credit. All US Funds.



possibly to select out some of the natural selection characteristics. You will have to make these decisions. As long as we have large herds on State and National parks, we probably will not lose the 'old type bison' and the "natural selection gene pools" entirely. When adding to your herd, you will have to decide whether to continue to add the "wild genes" or the "domestic" genes and in what ratio.

Step 1: See The Adults In The Herd

In the beginning most of us start with 'any ol buffalo' and are happy. Then we get more selective. Best to be selective at the beginning with the price tags today. Since it is hard to tell what young animals will become, the very best thing you can do is to see the whole herd before buying young animals out of it. At least you can see the potential in the mature bison.

Step 2: Keep Good Records

Once you get some bison, keep reproduction records, health records and just "little notes" on anything that you notice. Without records, your culling will not mean much. Of course, practice good management so that you are not culling a herd due to your own bad management. In other words, you can't starve the herd and expect a calf every year out of each cow.

Step 3: Cull The Herd

The old saying: "Keep the best and eat the rest" should be your motto. Open cows should be evaluated and culled. Watch the cows with calves. Those that raise "poor looking" calves should be culled. Injured or sick animals and especially those that recover slowly should be evaluated and probably culled.

Select only a few of your very best bulls and bring in new, young bulls frequently. Your very best bulls can be sold to others for breeding stock and you use only the best of the new ones you brought in. Slaughter the rest for meat. Look at the conformation of the adult buffalo. If you are breeding for "big" then decide to cull the smaller cows in favor of keeping more heifer calves from the largest cows. The same for breeding bulls.

Are you looking for long, rangy type buffalo, or short compact ones? You decide. Make notes on the bull calves. Which ones seem to put weight on by 15 months? Which ones are still just growing frames? If you are in the meat business, this will be one thing to cull for.

Step 4: Quarantine New Additions

If you are buying bison to add to your breeding herd, I strongly advise that you have a quarantine area and keep them away from the herd for at least 90 days. If you can

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SURPLUS BISON FOR SALE

by

THE NATURE CONSERVANCY

Available for delivery between November 1 and 20, 1990 are approximately:

40 weaned bull calves
3 mature bulls (6 yr)

Niobrara Valley Preserve
Johnstown, Nebraska

20 weaned bull calves
10 heifer calves
15 cull cows (10-15 yr)*
2 mature bulls (7 yr)

S.H. Ordway Memorial Prairie
Leola, South Dakota

10 weaned bull calves
10 weaned heifer calves
7 mature cows (3-8 yr)
1 mature bull (7 yr)

Cross Ranch Preserve
Hensler, North Dakota

All animals will be health tested for interstate shipment—certificates, *except the cows are not bangs vaccinated

SEALED BIDS ACCEPTED THROUGH NOVEMBER 1

The Conservancy reserves the right to reject any or all bids. Bids will be accepted for all or part of the groups available at the three Preserves and will be available for delivery at the respective Preserve corrals.

Bid forms and information can be obtained by writing or calling:
Niobrara Valley Preserve (402) 722-4440
Route 1, Box 348
Johnstown, NE 69214


The
Nature
Conservancy

keep them separate for longer, do so. This way any problems that show up later will not be carried into your main herd. Retest all your new additions before adding them to your herd. Sometimes health records are inaccurate, or exposure to something was so recent that it could not yet be tested for. Quarantine areas should have no fence line (nose to nose) contact with other livestock, no common water supply, no common food supply, and even drainage from the quarantine area on to the main pasture is not a good idea. Separate farms, of course, would be the ideal.

Buying Tips

FIRST: Read or review the herd bull section under reproduction in the NBA's new book—"Buffalo Producer's Guide to Management & Marketing"! In fact, if you are a newcomer, you need to read the entire book.

The newcomer has to *develop an eye for quality breeding stock*. We will try to give you clues on things to look for, but the very best advice is to look at bison *very closely*. See many herds.

Check List

1. **Eyes:** Clear and alert or dull and lifeless Look for any noticeable white or cloudy areas.
2. **Horns:** Small nubbins (up to about 6 mo.). Straight (no curve - Yearlings). Horns curving just enough to point

upward, more like a half curve (2 Yr. Old). A full curve in the horns (three years), with growth rings (over 3).

3. **Head Size & Proportion:** Bulls should be massive. Females in proportion to their size.

4. **Facial Hair:** Shaggy with bangs or shorter, more of an Afro

5. **Color:** Blondish brown, brown, reddish-brown, black

6. **Legs:** Standing on all four legs or favoring one. Walking with an even gait or limping.

7. **Hump:** Sloping or angular. Over front legs, or forward of front legs?

8. **Body Condition:** Good amount of flesh or bony and thin; large animal, or small size, stunted, looking for age by horn size.

9. **Calf size:** The best time to see this is in the fall. Notice the calf size in comparison to the cow and to other calves.

10. **Bulls:** Testicles - both descended, large scrotal circumference.

Basically this list is a means to get the newcomer to *really look* at the individual bison. 'Old Buffalo Traders' just naturally do this without even thinking. The next step is to look at more buffalo. Visit many producers, go to some auctions and notice what the high price animal looks like. Only by comparing herds and seeing a lot of variations in herds will you begin to develop an eye for the *type of buffalo* that you want. First, you will start to spot the "inbred" herds. It takes a much longer time to be able to

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NEBRASKA GAME & PARK'S COMMISSION

BUFFALO AUCTION

Monday, November 19, 1990

Starting at 11:00 am

FORT ROBINSON STATE PARK BUFFALO CORRALS

3 miles west of Crawford, NE US 20. Road will be marked to corrals. Directions are available from park lodge.

Approximately 40-70 head from Nebraska Game & Parks Commission's Fort Robinson herd will be sold, consisting of mixed ages and sexes. Majority will be 2 year old heifers (Bangs vaccinated). Buffalo over one year old will be tested for brucellosis and tuberculosis and accompanied with a health certificate.

TERMS: Cash (personal check accepted if accompanied by notarized authorization letter from issuing bank). Buyer must pick up buffalo the day of the sale or make arrangements with the park superintendent prior to sale.

For further information, call or write:

JIM LEMMON

Box 381

Crawford, NE 69339

308-665-1175 or 308-665-1269

JIM SCHMAILZL

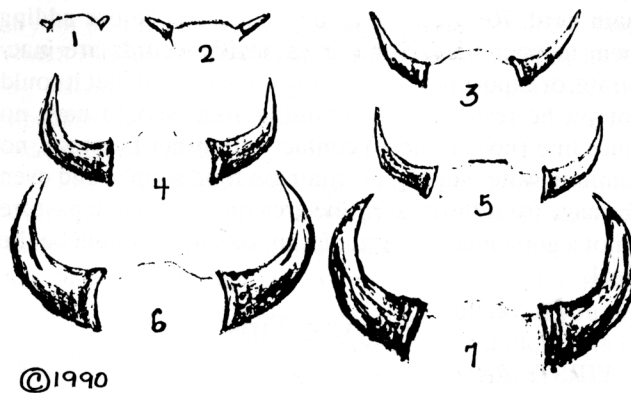
Box 94901

Lincoln, NE 68509

402-479-4891

spot the "good" yearling or even 2-year old than it does to learn to spot a "good" fully mature buffalo. Stick with it, you will learn. Ask detailed questions about their management system, their worming program, etc. **NOTE:** You should know that animals that carry a heavy parasite load will have a damaged intestinal tract and poor food absorption. Even though you worm them later, the damage may be permanent.

Really study horn development. This will prevent you from buying a stunted, older animal that you think is young. Being informed will keep a true trader from getting the best of you. While an animal will reach mature size anywhere from 5 years to 10 years, according to nutrition, disease, parasite load, etc. - the horns seem to grow at a predictable rate. They have nubbins up to approximately 6 months. Horns are "spiked" and straight but vary in length from short to longer from 6 months to about 1 1/2 years. Going on toward age 2, the horns take an upward "half curve". By the time the buffalo reaches age 3, there is a full curve in the horn and it now points straight up. After age three, the next years start adding growth rings to the horns. Many bison will rub these rings nearly smooth, especially bulls. Spacing between growth rings varies and may have to do with nutrition. Generally after the first one or two,



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they get closer together and harder to count. Knowing exactly how old my herd is, I have been able to count the growth rings, add three years for the horn curve and 1 year for the ring growing in the hair line and it gives me the age of the buffalo. So far this is valid up to age eight. My herd is young yet. The only old cow (age 15 and the best cow) I have is so wild that you couldn't begin to count the growth rings; even in the chute she fights too hard.

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