

Studying the Wild Ones:

'Strong as a Horse' Is No Joke

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Editor's Note: Metrics are usually inappropriate in Rangelands. However, they were left in this time for the benefit of the many SRM members and readers living outside the United States of America.

This article describes the animal handling facilities and techniques used and some of the lessons learned during the course of the 2-year research project.

The pictures represent some of the more interesting and trying parts of the horse handling problems.

To serve as beneficial research tools in studies where wild horses (*Equus caballus*) must be confined, gentling and familiarization with handling facilities and procedures to be used in data collection is essential. It was desirable to have horses used in this research graze in a natural manner while being observed so fecal samples could be easily collected from known animals. Gathering and corralling horses was imperative for periodic weighings. Implementation of the research was difficult and expensive due to the need to develop specialized equipment, facilities, and fencing suitable for initial handling and gentling of wild horses as well as for confining and working horses in the field. The objectives of this paper are to describe handling facilities and techniques used successfully and unsuccessfully in wild horse research, and to make recommendations that may help future researchers.

Permanent Facilities

Horse handling corrals at the University of Wyoming, in Laramie, were built of 2.4 m (8 ft.) long 5 by 15 cm (2 by 6 in.) boards. These were turned on end and nailed to two 5 by 15 cm (2 by 6 in.) boards bolted to posts 20 to 25 cm (8 to 10 in.) in diameter and set 0.9 m (3 ft.) deep and 3 m (10 ft.) apart (Fig. 1). Posts should probably be set closer to provide additional strength as the fence nearly collapsed on one occasion when hit by several horses. This fence provided adequate weather protection, while spacing between boards provided ventilation. Additional corral space for keeping bands separate was obtained by adding an extension to existing cattle pens increasing their height to 2.4 m (8 ft.).

A conventional cattle crowding alley proved too wide for handling horses and their movement could not be stopped by running poles through the alley. Uncontrolled movement and bunching may cause injuries to horses, especially younger animals. Consequently, an alley system was built using conventional 1.8-m (70 in.) high heavy-duty portable corral panels to which 36-cm (14 in.) extensions were added.

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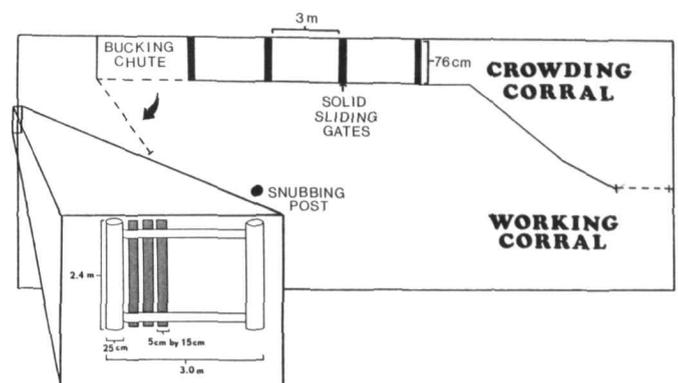
Panels had square corners that fit flush where joined thus reducing the possibility of horses catching feet in a joint between panels while attempting to climb or jump out. Horses are less likely to challenge a fence they can't see through, so plywood sheets were attached to panels to provide a visual obstruction. Researchers have found where animals are crowded they should not be able to see either through or over the fences, (Rider et al. 1974, Grandin 1977, McFarlane 1976).

A 76-cm (30 in.) wide alley, built with sliding solid gates at 3 m (10 ft.) intervals, led to a bucking chute. The narrower alley and solid gates provided the control necessary to handle horses during the early gentling period. Gates were not required after horses were conditioned to moving through the alley. The bucking chute could not totally restrain horses but did sufficiently control them for initial haltering. The side-opening gate of the bucking chute provided a safe way to release horses. Risks to horses and handlers were greatly reduced by using this modified alley system instead of a conventional cattle crowding alley (Fig. 1).

When a horse was released from the chute, manning the rope from foot or horseback proved dangerous and ineffective. Consequently, a snubbing post 2.4 m (8 ft.) tall and 25 cm (10 in.) in diameter was set 1.2 m (4 ft.) deep in the center of the working corral.

Field Facilities

Field facilities were designed to accommodate cattle and horses. Originally, both summer and winter sites had 6 pastures, 3 on each side of a 6 m (20 ft.) wide alley that led to portable working facilities. Pasture fences had to keep free-roaming wild horses out while confining research animals. For wild horses barbed wire was too dangerous, and woven wire was too expensive. The New Zealand-type electric

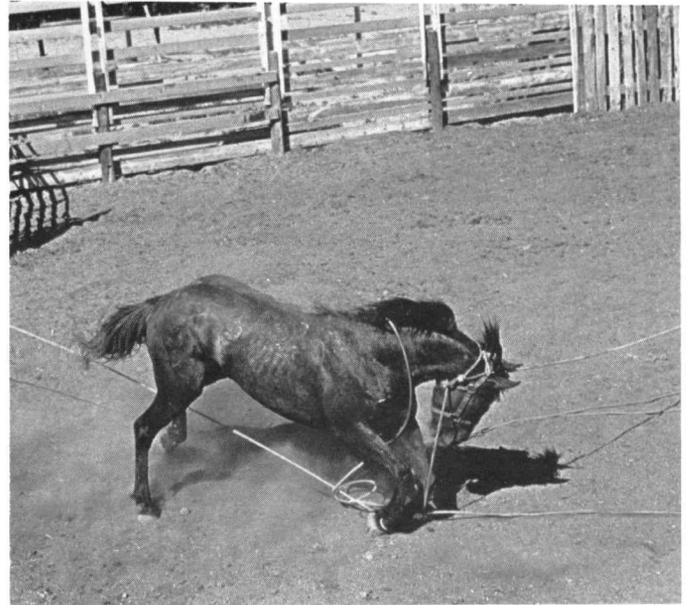


Working corral and alley chute system.

fence, consisting of 6 high tensile strength steel wires with alternating electrified and grounded strands, offered effective control at a reasonable price. The grounded bottom wire was 41 cm (16 in.) off the ground to allow antelope movement. Perimeter and cross fences were 1.5 m (5 ft.) high, while alley fences were 1.8 m (6 ft.) high. Horses were previously conditioned to electric fences by running electrified wires across corral corners. After the first winter study period pasture gates were widened from 2.4 to 5.5 m (8 to 18 ft.) and wood lathe snowfence wings 9.1 to 10.7 m (25 to 30 ft.) long were built on the sides making gate-openings more visible, thus facilitating animal movement through them. Snowfence was also used to block the alley and turn horses through gates (Fig. 2).

The portable panels previously used to gentle horses in Laramie were also used during the first winter study to build one square working corral and an alley leading to a weighing chute. For the following 2 studies, the portable corral system was divided into 2 pens to simplify working and sorting animals. This modified arrangement allowed one band to be unloaded and moved to the back pen to calm down while a second band was unloaded (Fig. 2). Snowfence could also be used to divide the two existing pens, but needed reinforcement as it was only a visual barrier. This allowed all 4 bands to be gathered and corralled separately for loading and transporting when a study ended. Corrals were built in a circular arrangement with right angled corners eliminated to simplify moving animals (Fig. 2). Curved corral fences prevent animals from knowing they are being corralled, and balking at working facilities (Grandin 1980).

The scale for periodic weighings had to accommodate cattle and horses and also restrain both, if needed, for medication. A side-opening bucking chute, with a cattle head-catch fastened to the front, was mounted to a beam-type platform scale. To avoid horses or cattle catching feet, the space between the bucking chute and scale floor should not



This mare was caught and tied to the fence earlier. After rearing back and breaking her lead rope, she was front footed and thrown before a rope could be re-attached to her halter.

be over 2.5 cm (1 in.) wide. A rubber horse trailer mat was placed on the floor to keep animals from slipping.

Gentling and Handling Techniques

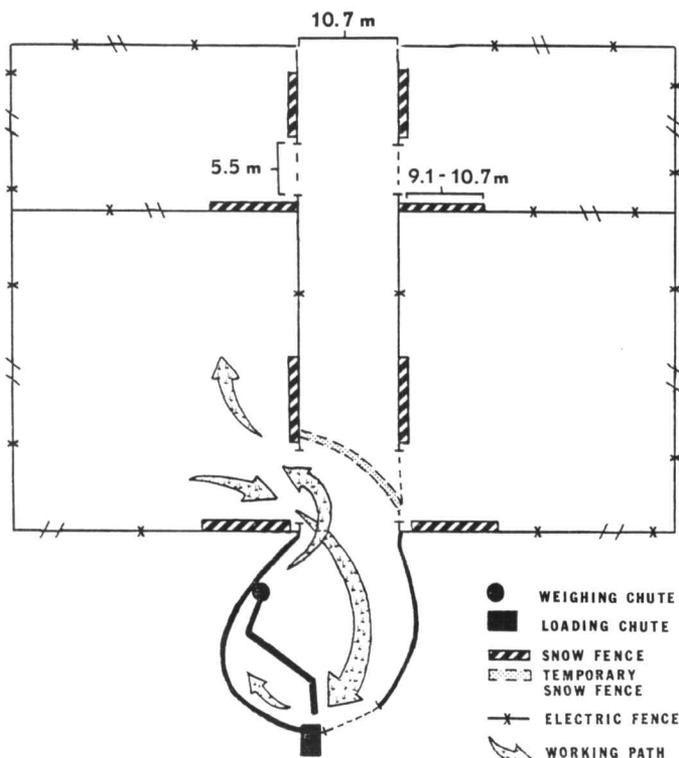
Fifty wild horses, ranging from foals to 15 years in age, were selected from horses gathered by the Bureau of Land Management (BLM) in the vicinity of the study areas. The integrity of 4 naturally established bands was maintained. Horses were transported to the permanent facilities in Laramie in a specially designed trailer as conventional stock trailers do not allow sufficient height. When loading and unloading, horses were worked most safely from the side or on top of the trailer although this made it difficult to maneuver the animals.

Horses were moved through an alley into a bucking chute for initial haltering. This also familiarized horses with equipment and procedures used later to obtain weights. A halter with a long lead rope attached was put on each horse. The rope end was wrapped around a snubbing post before the horse was released.

Cotton, plastic, or nylon rope halters proved unsatisfactory the first few times mature horses were haltered. More expensive nylon strap halters were satisfactory although the tie-rings, where lead ropes were attached, often pulled apart. Consequently, rings were welded before halters were used. Rope halters were sufficient for foals and older horses once they settled down.

When the chute gate opened one handler hazed the horse while another kept the slack pulled out of the rope, gradually drawing the horse towards the snubbing post. When the horse lost its initial fight it was tied to the corral fence and left to fight the rope and halter.

For the initial training, all horses in one band were tied for 3 to 5 consecutive days and left tied a minimum of 8 to 10 hours per day. After all bands completed this training, horses were caught and handled almost daily for 3 months, but were never left tied for longer than 2 to 3 hours. Soon most younger horses and a few mature ones could be caught by



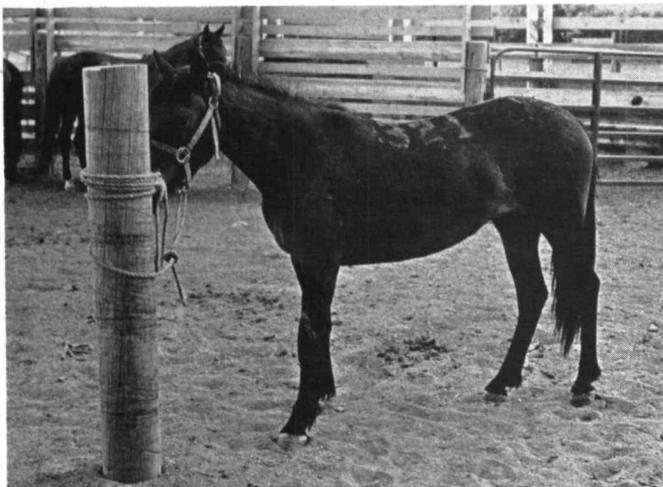
Modified pasture alley and corral system.

roping, but the chute was still used to catch the others. Most horses 4 years old and younger responded well to handling and many were successfully broke to lead. Some mature horses remained difficult to handle and, due to their unpredictability and strength, proved dangerous to themselves and handlers.

Horses were loaded by bands and taken to the winter study site in December, 1980. The horses were nervous and keyed up when they arrived. With only one portable corral horse bands could not be unloaded and allowed to calm down before being moved to study pastures. When the first band was released into the alley, horses bolted and ran through fences into the nearest pastures. Three horses were lost through the perimeter fence. The three remaining bands were moved with little more success. Horses could not be gathered to redistribute properly. When riders tried to move the horses through gates, some of the mature horses would turn back and the others followed. To avoid possible injury to saddle horses or riders, and the possibility of more wild horses escaping through the fence, animals were allowed to remain in the pastures they had broken into. When the study terminated in February, 1981, the BLM provided a helicopter and additional riders experienced in wild horse roundups to help gather the horses.

To avoid difficulties encountered in the first study, 12 of the older problem horses were returned to the BLM. The rest were pastured on native range near Laramie. To keep horses familiarized with human activity, they were fed hay and a range supplement in cake form once a week. A rider also occasionally rode through the horses.

The horses were returned to the permanent handling facilities at the University 6 weeks prior to beginning the summer study. Most horses were roped and snubbed to a post to halter. Some horses were front-footed, thrown, and had 3 legs tied before they could be haltered. Still, this method was faster and resulted in fewer injuries than using the alley and chute system. When horses settled, they were tied to the corral fence. Cake was hand-fed to each horse caught. Soon most horses would approach handlers to receive cake, so many younger ones could be caught without being roped. All younger horses were broke to lead. Although horses did not necessarily need to lead for collecting required data, the extra handling many horses experienced by being broke to lead simplified working with them and collecting data.



Horses were haltered in the bucking chute, then released and snubbed to this post. After calming down they were moved and tied to the 8 ft. fence in background.

Since original bands were no longer intact, horses were reassigned to groups, with a dominant stud in each, and placed in separate corrals. Sixteen domestic mares replaced horses lost and horses returned to the BLM. Four were placed in each group to calm wild horses and simplify herding horses through gates.

Horses were loaded by bands and transported to the summer site in June, 1981. Bands were unloaded and penned separately in the modified corral system. As soon as a band calmed down, it was moved to the appropriate pasture. All four bands were unloaded and moved with little difficulty. After allowing the horses a few days to adjust to pastures, each band was hand-fed cake to ensure that horses could still be approached and handled.

All but the oldest dominant stud drove the other studs from their mare bands soon after the bands were released into pastures. This made gathering horses and data collection more difficult. In one pasture, the dominant stud refused to let the bachelor studs water, so it became necessary to provide water at a second location.

To obtain weights, horses from each pasture were gathered and corralled separately and then allowed 10 to 15 minutes to calm down. Horses broke to lead were caught and led through the weighing chute, and after their release, were rewarded with a cake. Other horses were hazed through the chute. After the horses were weighed, and again allowed to calm, they were returned to pasture. With experienced riders all 4 bands could be gathered and weighed in a day. While collecting fecal samples, cake was occasionally fed to keep horses from moving off when a technician approached. At the termination of the study in August, 1981, horses were returned to Laramie, again pastured on native range and occasionally fed cake as before.

Two weeks before the last winter study, horses were returned to the permanent handling facilities. Bachelor studs were removed from the band that refused to let them water and were replaced with mares. These studs were placed in the oldest stud's band and all were accepted. If a longer adjustment period were possible the replacement mares probably would have been accepted into their new band also. These mares were tolerated by the stud and his mares but not quite accepted. Consequently, in November, 1981, when these horses were released into pasture at the study site, the introduced mares formed one band, the stud and his mares another. The mare band was allowed to water, but not while the stud and his band were watering.

The improved handling facilities and techniques used successfully in the summer study were also utilized in the second winter study. No new horse problems developed in this last winter study which ended in December, 1981.

Recommendations

Facilities

1. Conventional livestock handling facilities are not suitable for initial handling of wild horses. Cattle crowding alleys are too wide to handle them safely and traditional livestock corrals are not high and may not be strong enough to confine these animals. Once horses have been gentled conventional facilities may be adequate.

2. Corral fences should be high and solid enough to obstruct the horses' vision and constructed of 5 by 15 cm (2 by 6 in.) or heavier lumber.

3. A portable corral system of square cornered panels 213 cm (84 in.) high with plywood sheets fastened to them to



The Bureau of Land Management helicopter moving horses to corral after the first winter study.

obstruct visibility is valuable during all phases of horse handling.

4. Crowding alleys should be a maximum of 91 cm (36 in.) wide and divided by solid sliding gates at 3 m (10 ft.) intervals.

5. A heavy-duty bucking chute, with side-opening gate, facilitates initial haltering and handling of wild horses. It may also be needed later if personnel experienced in roping and throwing horses are not available.

6. Heavy-duty nylon strap halters with welded tie-rings should be used when haltering mature wild horses the first few times.

7. A snubbing post makes horse handling safer and easier.

8. If field pasture design includes an alley between pastures, it should be at least 10.7 m (35 ft.) wide, so horses can avoid contact with the fence.

9. A semicircular arrangement of pastures around a central work and living area may be a more desirable design for field sites.

10. The New Zealand-type electric fence proved safe and effective in controlling wild horses. Horses should be conditioned to an electric fence before release into electrically fenced pastures.

11. Pasture gates should be 5 m (18 ft.) and wings should be built to making openings visible.

12. Wood lathe snowfence is inexpensive and can be used to build wings for gates, and make temporary corral divisions. It can be moved and set up easily, and rolled up and set out of the way when not in use.

13. For weighing horses, a bucking chute can be mounted to a beam-type platform scale. The gap between the chute and scale floor should not exceed 2.5 cm (1 in.) wide, and a rubber mat should be placed on the floor to prevent slipping.

14. Added safety from using the heaviest available equipment, and from building customized facilities for working wild horses more than justifies any added expense.

Wild Horse Selection and Handling

1. For a study that involves handling wild horses, personnel with previous horse handling experience are necessary if the gentling and handling of horses is to be accomplished in a manner that is safe for the researchers as well as the horses. Experienced riders are needed to gather wild horses from pastures.

2. Young horses, 4 years old and under, should be used as they are usually easier to handle and respond more readily to gentling procedures.

3. At least 6 months should be allowed to gentle horses before beginning a study. More time will be required if mature horses are used.

4. Rewarding horses with a hand-held feed, such as protein range supplement in cake form, makes horses more trusting and, consequently, easier to approach, catch, and handle.

5. If horses become excited, they should be allowed to settle down before further handling is attempted.

6. Only one stud (except nursing colts) should be in a pasture group. If only mares are used, making observations may be more difficult as horses would be less apt to band into one tight group.

7. New horses should not be added to established bands without a 4- to 6-week adjustment period prior to field use.

8. Domestic horses add a calming influence when pastured with wild horses. Wild horses are less apt to break and run when approached if domestic horses do not become excited. Domestic horses aid in herding wild horses through gates and help them calm more quickly after being worked.

Wild horses can be very dangerous to themselves and researchers if not adequately gentled and conditioned to handling procedures used in data collection prior to beginning a study. Mature horses may remain intractable even after considerable time is spent trying to gentle them. In pasture situations, these older horses may cause bands to run when approached by researchers on foot or horseback. This may make data collection difficult or impossible. Pasture and corral systems should be designed to facilitate working and moving horses. It is imperative that researchers are as careful to plan how they will work with the animals as they are in planning the research. Inattention to either will greatly limit the research quality and potential.

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