

Squeeze Chutes with Headgates for Working Cattle

Our topics for this week are:

- **Proper construction and uses for cattle squeeze chutes**
- **Types of headgates and their advantages**

The most common approach to catching cattle is to herd them quietly toward or along an enclosure and into an alleyway that goes toward a squeeze chute with a headgate. This should be done without a lot of excitement using a soothing voice. The herd's collective flight zone should be approached at 45 degrees from behind, moving toward the shoulder of one of the dominant cattle in the center of the herd.

All of this should be done in training sessions when the cattle are young with creating a non-stressful introduction to a squeeze chute followed by return to the herd, fresh water, and feed or hay as the only objective. Training trips to and through the squeeze chute without vaccinations, surgery, ear tagging, and other procedures reduce stress when the cattle are later worked in a squeeze chute.

Squeeze Chute:

Squeeze chutes are metal boxes with a headgate to entrap individual cattle. Headgates are head catches that close on the cow's neck preventing it from escaping forward or back but can also open as a front gate. Squeeze chutes are integrated with a headgate. Procedures that are best performed in a squeeze chute and headgate are vaccinations, giving injectable medications, drenching, bolusing, castration, dehorning, treatment of eye conditions, fertility exams, implanting, ear tagging, branding, stomach tubing, and collection of blood from the jugular vein.

A squeeze chute can press on the sides of the cow's body to prevent side to side movement. The upper section of the sides has drop down bars and the lower section has removable panels to provide access to different areas of the cow's body. All squeeze chutes, including portable ones, should be securely fixed to the ground to prevent tipping or sliding. A squeeze chute and headgate should be 1 inch steel rods welded flush with the floor in scales and squeeze chutes. Equipment should be padded where steel hits steel. The headgate should move smoothly, quietly, and quickly.

Outdoor squeeze chutes should be oriented north-south to prevent cattle facing the sun when approaching the chute. Single file alleyways leading to restraint chutes should be curved. Squeeze chutes are V-shaped with the lower portion about $\frac{1}{2}$ to $\frac{2}{3}$ the width of the shoulder space which encourages the cattle to slow down when entering the chute. The lower aspect of the V-shape is about 16 inches wide and twice as wide at the top. The width of the floor in the squeeze chute should be set to 6 inches for 400-600 lb. calves, 8 inches for 600-800 lb., and 12-

16 inches for adult cattle. The squeeze should work from both sides to prevent unbalancing the cow.

The flooring should be non-slip. Cattle will move into a chute if the flooring is the same color and texture as the alleyway floor. If that is dirt, dirt should be thrown onto the chute floor. Application of squeezing the sides should be slow and steady to reduce agitation.

Squeeze chutes typically have removable 2 ft high side panels for access to the lower aspects of the cow with individually removable vertical bars for access to different areas of the cow's upper body. The entire side of the chute should open to rescue a cow that is down in the chute to regain her feet.

Handlers should always open and close swinging gates in livestock enclosures, including headgates, with outstretched arms to reduce the risk of being knocked down by a bumped gate. A cow restrained in a headgate will typically put her head down and then jump forward bumping her shoulders against the gate while raising her head.

Squeeze chutes and headgates can have either manual or hydraulic action. Most hydraulic chutes operate at 500 psi and have pressure release valves. The pressure setting should not squeeze excessively which can frighten or injure cattle, and squeezing should be slow and steady to movement without unneeded pressure.

Headgates

The headgate in a squeeze chute entraps the cow's head just behind its ears. Cattle are driven into the chute and caught by vertical bars as soon as the ears go through and before the shoulders get into the headgate. As soon as the head is caught, a bar is placed behind the cow to prevent it from pulling back on its jaw and ears. Depending on the restraint needed, the sides of the chute may be squeezed against the cow to limit movement.

Headgates can have straight or curved bars to catch the neck. Curved bars limit the vertical movement of the head more than straight stanchions which reduces the risk of being butted by an upward head movement, but curved bars can cause choking if the cow goes down. Headgates may have adjunct swinging bars. A head bar is a straight bar that goes over the back of the neck preventing the head from being thrown upward. A nose bar has a bend in the middle that fits over the bridge of the nose preventing the head from thrusting forward. A stanchion is a simple head catch without a chute.

There are four types of headgates: scissors, fully opening, positive control, and self-catching. The most common type is scissors. A scissors stanchion has halves that pivot from the bottom and squeeze the sides of a cow's neck. It opens from the front, and the bars may be straight or have a curve at the points of contact with the neck. This headgate may have accessory head table or nose bar attachments to limit vertical head movement. The fully opening has headgate halves that work like sliding doors. It permits an easier exit for large cows and bulls. The positive control (guillotine) headgates close from above and below which can cause choking. Positive control headgates were more common when horned cattle were popular. Release is relatively slow, requiring the cow to back after releasing its head and then opening the front like a swinging gate or releasing from the side of the chute. The self-catching headgate

works by a cow's shoulders hitting the stanchion bars and moving them forward to close. This can malfunction and allow escape if not properly adjusted for the size of each animal. Straight bars allow the head to easily move vertically. Curved bars may put pressure on the carotid arteries and cause the cow to faint. Prolonged procedures, like many veterinary medical procedures, should be performed in straight bar headgates.

When tying a lead rope to a cleat on the side of the headgate, the handler must pull and hold the line while making wraps and ending with half hitches on the cleat. The wraps should be done with the heel of the hand to protect fingers from getting trapped if the cow suddenly tugs on the lead rope.

Manual levers can be ratchet-latch or friction-latch. Ratchets are noisier. Friction latches can become insecure with wear. Protruding levers on manual chutes are dangerous and can cause operator head and hand injuries and even death. Protruding levers are eliminated with hydraulic chutes.

Although it is an uncommon procedure in the U.S., cattle should be trained for restraint in squeeze chutes and headgates. When procedures (ear tagging, vaccinations, castration, etc.) are performed on them in the future, release from the chute should be timed for when they are not struggling. Otherwise, they are likely to run out and have a perception that they have escaped. Unstressed cattle come out of a squeeze chute and headgate at a walk or slow trot. Cattle that are normally released from a squeeze chute with a headgate should be penned with other cattle and provided with water, salt, molasses blocks, or choice hay to calm down before release into a pasture.

Bars or gates that slide across the alleyway or gates that drop down should be used to prevent backups, but a bar or gate should never be placed behind a handler who is in an alleyway moving cattle. Butt bars prevent backing up when released through the front of a chute. Butt bars are also placed behind the first cow in an alleyway and the last cow. If using a butt bar, the handler should always keep his body at the end of the bar in case the other end is suddenly hit by a cow and the handler's end is swung forward or backward. Butt bars in squeeze chutes can break the arm of someone doing a rectal palpation if the cow suddenly goes down.

If you have comments or you're interested in particular animal handling subjects contact us at CBC@BetterAnimalHandling.com

Now let's recap the key points to remember from today's episode:

- 1. Cattle should be introduced to squeeze chutes when young without being worked on to lessen the stress of being worked in chutes later in life.**
- 2. An indication of good handling in chutes and headgates is cattle exiting at a slow trot.**

More information on animal handling can be found in my recent books, *Animal Handling and Physical Restraint*, *Concise Textbook of Small Animal Handling*, and *Concise Textbook of*

Large Animal Handling all published by CRC Press and available on Amazon and from many other fine book supply sources.

Additional information is provided at: www.betteranimalhandling.com . This website has more than 150 past podcasts with notes on handling of dogs, cats, other small mammals, birds, reptiles, horses, cattle, small ruminants, swine, and poultry.

Don't forget, serious injury or death can result from handling and restraining some animals. Safe and effective handling and restraint requires experience and continual practice. Acquisition of the needed skills should be under the supervision of an experienced animal handler.