



Grafting Calves

by Heather Smith Thomas

Occasionally a cow loses a calf at birth or a calf loses its mother, and you need to “graft” the orphan or a substitute calf onto another cow to raise. Or, a cow might have twins and can’t raise both of them, and you want to put the extra calf onto a cow that lost her own baby. Sometimes it’s prudent to graft an old cow’s calf (so the old cow can be fattened and sold) onto a younger cow that lost a calf.

It can be challenging sometimes to convince a cow to adopt the substitute calf. There are many tricks a person can try, according to Dr. Mark Hilton, Purdue University clinical associate professor of beef production medicine. He says the most reliable way is to skin the dead calf and put the hide on the substitute. “You don’t need the entire hide. About half to three-quarters of it will do. The

important thing is to leave the tail on, since the cow will spend a lot of time licking that end of the calf,” he says.

The cow knows the smell of her own calf (even if it was dead at birth — if you gave her a chance to smell and lick it before you took the body away). This “smell bonding” can trick the cow into thinking the substitute is her calf.

Grafting works best when a cow loses her calf while it is very

young. Her mothering instinct, due to hormonal changes during the birth process, is strongest soon after she calves, and she can be more readily convinced to accept another young calf in place of her own. If her own calf dies after it is a few days or weeks old, it is harder to trick her into taking a different calf. But it is always worth a try.

“Put some holes in the hide so you can attach strings or baling twine. I generally put holes in front and back of the front legs and in front of the hind legs, to tie the hide onto the calf. Leave the hide on him for three to four days; generally that’s enough time to convince the cow that it’s her calf — and the hide starts stinking by then and you’ll want to take it off,” Hilton says.

Bring the “new” calf to the cow when the calf is hungry and eager to nurse. The sooner he nurses her the better, if she lost her own calf at birth. Nursing triggers the release of oxytocin in the cow, which stimulates motherly behavior. You want the cow to accept the calf before she becomes suspicious. Once the substitute calf has nursed a few times and the cow is accepting him, it is usually safe to take off the old skin.

“If you don’t have the hide from the calf that died, there are commercial products to put on the substitute calf to encourage the cow to lick him. I’ve only had moderate success with these or with applying syrup, molasses or salt to the calf to entice her to lick him,” Hilton says.



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One rancher’s experience

Most ranchers have tricks they’ve learned over the years — ways to convince a cow to accept a calf that’s not her own. Buddy Westphal, Polson, Mont., has grafted many calves (usually twins) onto other cows.

“We generally have about 15 sets of twins or more, out of 600 cows. We calve 100 heifers and there are always a few problems and we need a spare calf. We may have an old cow that we love what she is producing, genetically, but if we think she might not do justice to her final calf, we may graft it onto a younger cow that loses a calf,” he says.

“For decades we did the skin-the-dead-calf trick. For the past 15 years, however, we have been using a combination of a little tranquilizer (for the cow) and some powder sprinkled on the calf. We use the commercial product O-No-Mo (Orphan-No-More) that smells terrible. You have to follow label instructions (dampening the calf with a damp towel, sprinkling the powder on and massaging it into the hair), and we also smear it on the cow’s nose. I think it has a salty tang, but whatever it is, the cow wants to lick it off the calf,” he explains. “The other key to success is to give the cow a little tranquilizer. This eliminates any question about her attitude and helps guarantee success. It ensures she doesn’t have adrenalin flowing, trying to fight the process. It makes her mellow and sleepy long enough for the calf to suck and feel confident about sucking her without getting kicked.”

A partial dose of the right kind of tranquilizer will keep the cow calm and docile. “You can push the calf around to suck and push the cow around wherever you need her to be, and she’s a little sleepy and enjoying it. When she wakes up, she wants to lick the O-No-Mo off the calf and the pair is bonded,” he says.



Mark Hilton, DVM, is a clinical professor of beef production medicine at the Purdue University School of Veterinary Medicine, West Lafayette, Ind.

“Using hobbles on the cow’s hind legs to keep her from kicking the calf has proved to be the best method to get the cow to accept the graft calf if we didn’t have a hide. After about a week, the cow usually gives up and lets the calf nurse,” he adds.

Try to introduce the calf when it is hungry. “I suggest putting the cow in a chute if the cow does not let the calf nurse right away — and let the calf nurse while she is restrained. You can also pen the calf separately and supervise the nursing two or three times a day.

A short gate or panel separating them is best, so the cow can reach over and nuzzle the calf if she wants,” Hilton explains.

It may take two days or two weeks to change a cow’s mind about being a mother, but she will eventually accept the calf. If the cow is hobbled so she can’t kick the calf and you give her some good hay to eat when you let the calf in with her at nursing time, she will usually stand still — without trying too hard to prevent the calf from nursing. Eating the hay takes her mind off trying to hurt the calf.

Easy hobbles

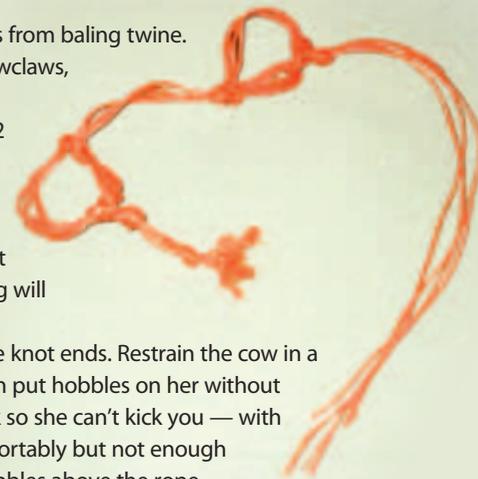
You can purchase strap hobbles or create hobbles from baling twine.

Use a nonslip loop around each leg above the dewclaws, loose enough to not cut off circulation but small enough to not slip down over the joint. Leave a 12 to 15 inch space between the legs, depending on size and stride of the cow. This gives her room to walk, but not enough to kick the calf. Always use a nonslip knot in the leg loops, so they cannot tighten. Otherwise, the blood circulation in the leg will be hindered.

Tie four strands of baling twine together at the knot ends. Restrain the cow in a headcatch, squeeze chute or stanchion so you can put hobbles on her without being kicked. If necessary, tie her nearest leg back so she can’t kick you — with enough slack in the rope that she can stand comfortably but not enough that she can reach forward to kick. Situate the hobbles above the rope holding her leg so you can take the rope off her foot after you’ve made the hobbles.

Tie the first knot a few inches from the tied-together end of the twines so there will be plenty of room to go around the cow’s leg and then tie a loop around the leg — just loose enough to get a finger between the loop and her leg. If it’s much looser than that, she may be able to pull the hobbles down over the joint when she tries to walk or kick, or she might get a toe of her other foot caught in the too-large loop.

Double-tie all knots so they can’t slip. After you make the final knot to finish the second loop, make another double-tied knot so it can’t come undone. Cut off the extra length of twine ends so they won’t drag. To remove the hobbles later, restrain the cow again and carefully snip them off. **HW**



If she is still trying to butt the calf, you may have to tie her at nursing time while she eats hay and baby gets dinner. Leave a halter on her, dragging the halter rope. Then you can get hold of the rope and tie her up or hold her while she eats the hay, enabling the calf to catch up with her and nurse. After dragging the rope and stepping on it, she quickly learns to respect this restraint and is nicely halter trained.

Usually, after a few days, even the stubborn cows resign themselves to letting the calf

nurse. Once the cow starts to show a change of heart, such as mooing at the calf, licking him or worrying about him when you put him back into his own pen, it is safe to leave them together.

You can keep the hobbles on a day or too longer just to make sure she doesn’t kick him when he tries to suck, but once she changes her mind and accepts the calf, your grafting job is successful. **HW**

The combination of O-No-Mo and a partial dose of tranquilizer works wonders. The cow isn’t fighting, and she feels motherly after the calf nurses. “Just make sure you don’t use too much tranquilizer or the cow will be ‘out of it’ for too long. You want her to be able to lick the O-No-Mo off the calf and decide that she’s a mother,” he says.

The tranquilizer must be prescribed and approved by a veterinarian. “You need to figure dosage by size/weight of the cow and also her attitude. If she’s mellow, it takes less than if she is excited and upset with a lot of adrenalin pumping,” he says. There are some new laws restricting tranquilizer use. Discuss this with your herd health veterinarian to see if this would affect his/her ability to prescribe the necessary drugs.

“In the years I’ve used the tranquilizer, my vet recommended using about one-third of the normal dosage. The metabolism and disposition of one herd might be a little different from another person’s herd. It is definitely better to underdose than overdose. You can always give more if it’s not working, but you don’t want the cow

to be ‘out’ for so long that she can’t stand up and be sucked. The key is to have her just mellow enough so you can work around her and she isn’t worried about the calf sucking or you helping him,” Westphal explains.



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When the tranquilizing effect wears off in about an hour, the calf has nursed, the cow is accepting him and the calf is confident that he can nurse without getting kicked. It can be frustrating, trying to graft a calf, if he becomes timid when the cow kicks him, and he won’t get that close to her again.

“If that happens, we substitute another calf — and use more tranquilizer or hobbles — and bottle feed that calf for another week until he gets his confidence back, and then we put him on a different cow.”

For successful grafting, it has to be a team effort with a cooperative calf. The calf has to be eager to nurse and the cow has to be willing — these elements make a perfect match. **HW**

O-No-Mo (Orphan-No-More) is a commercial product that can be used to encourage a cow to claim a calf. By following label instructions — dampening the calf with a damp towel, sprinkling the powder on and massaging it into the hair — and then smearing it on the cow’s nose, makes the cow want to lick it off the calf and start the bonding process.