

TRAINING CATTLE with PREDATOR AWARENESS



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In 2011, the wolf designated as [OR7](#) entered into Siskiyou County, California. In November of 2015, the first probable Wolf and livestock conflict occurred. The presence of the [wolf](#) which is protected by law and the Endangered Species Act, has created concerns for the ranching community. Through research and practice, the method of [predator awareness](#) was created. Even with successful performance, we are dealing with an apex predator and make no guarantees for any solutions offered. Our ranges of Northern California and Southern Oregon, are unlike the ranges of other areas that can support the herds existing in one continuous group. Our ranges lend themselves to smaller groups spread over greater distances. That requires our cattle to group in smaller numbers, and those groups must react as a defensive herd, which can be an effective deterrent to the predator's presence.



[Predators](#) are an expense to the bottom line of any [ranching](#) operation. How to mitigate this risk is the purpose of this paper. Predators are why herds exist and cattle are herd animals. (Mooring and Hart 1992). The herd is a defensive posture livestock use to avoid predation. Ranching and management practices have caused some of our livestock to lose the herding reaction and become desirable prey to predators (Grandin and Deesing 2014). Many of our practices and studies are made by separating individual livestock from the herd, but very little is done to return the individual to its herd group and promote herding. Our objective is to re-instill those herd instincts among livestock production and to create a reaction that resembles [musk ox](#) or [bison](#).

The beef industry encourages low stress livestock handling, but low stress livestock handling is a tool used when humans are dealing with management practices and livestock. There are those promoting it as a deterrent to predation. It is not a deterrent. If humans are present, the wolf is not. Predators are a concern when humans are not present such as on open ranges and large pastures, or on feeding grounds that border predator habitat, such as wooded or forestry interfaces.

Breeding and creating meaner cattle is not the solution. That only creates individuals who want to chase and fight the predators, establishing an individualized chase sequence, fitting very nicely into the predators methods of hunting. Creating [predator awareness](#) first begins with understanding predator-prey relations or the hunt, capture and consumption of the prey, which have their own dynamics. Our concern will be on wolf/livestock confrontation, although other predatory mammals maybe deterred by this [stockmanship approach](#).

There are four predator species of concern in these areas, Coyotes, Mountain lions, Black bears and Wolves. With camera monitoring it was apparent that the livestock herd instincts had changed. Cattle monitored were not seen as individuals only as groups, only additional cattle that where brought from other areas and had not received any training showed individualization. Cameras support the fact that the herd training that the livestock received remained intact when humans were not present and the trained cattle remained in herd groups. Through camera surveillance, the [predator awareness](#) training created a behavior in cattle that showed they moved and grazed in herds.



Groups monitored by trail cameras were consistently 10 to 12 pair.



A predator finding prey must select, single out, pursue and capture its prey. Wolves generally chase their prey as a pack and can pursue them for great distances. Even when wolves hunt as individuals they still chase and run their prey. By removing the pursuit or chase we are interrupting the hunting sequence. Our goal is to establish [predator awareness](#) that creates a reaction from our livestock to seek other cattle, group together and stand, not running or pursuing the predator. Doing this will create a safe, calm defiant herd stance, and we remove stress and the losses associated with the stress of the chase.

With calm resolve and deterred predator individualization, and by removing the **chase** sequence, we are discouraging the predator's pressure and we are interrupting the predator-

prey relationship. It is an effective management solution that can be integrated into modern day beef production with [stockmanship](#). There are economic values of cattle that react to their environment with confidence and contentment. Promoting cattle well-being with sound management can add to the bottom line. This deterrent is a low cost producer based solution.

This [stockmanship](#) approach has been developed and worked on since 2012. It was applied to three cooperating ranches in the grazing season of 2016, where predators and livestock were monitored with trail camera placements. These ranches are all commercial cow/calf producers in Northern California and Southern Oregon. The ranches consisted of three calving dates, fall, spring and year around. The ranches encompassed two US forestry permits, nine private leases and approximately 900 mother cows and replacements. There were no losses due to predation. The training that was performed on two of the participating ranches was started on two US Forrest grazing permits with no previous training of the livestock. The third ranch had been working on developing this training skill since 2012. Through the livestock training of one full time rider and one part time assistant and two dogs, they accomplished the [predator awareness](#) training of all the livestock in all the areas.

There are three components to this [stockmanship](#) approach. The first is the [standing solution](#), where the cattle are encouraged to group as a herd and not run or flee, to stand calm in a group, not fighting, pursuing or individualizing themselves away from the herds safety and its [standing solution](#). The [standing solution](#) is to discourage flight, or the act of running away as an individual. The second is [herd awareness](#). This is a loose grouping of cattle that are aware of where the group is at all times. When cattle are confronted with a pressure or a stressful situation they are aware of the herds location and react with movement towards the group. The final component is [predator awareness](#), which is the reaction of herding into a defensive posture to deter a predator's presence as a herd group. The defensive posture is the herd itself. Encouraging and training cattle to react to a predator's presence by seeking the herd for comfort and security is the key to [predator awareness](#).

By promoting and establishing livestock reactions to pressure by herding and grouping in the [standing solution](#) cattle can deter predators on their own without human interaction. This training of cattle invokes other beneficial behavior such as handling ease and herd gentleness. This can aid in the ability to gather in rough country with less labor, calmly and safely, and with better success and results. There are also financial benefits. Less stress creates better conception rates, higher gains and less depredation. This is a producer based solution to an apex predator involving management decisions that are measured in benefits to livestock production and quality of life, which can lower inputs and have higher rewards than other deterrents. This deterrent focuses on our livestock, it does not focus on the [wolf](#).



The cattle pictured here are grazing with **herd awareness**. The photo on the left shows the proper cattle grouping before a stress was introduced. While walking through the pasture to reach the cattle for inspection, a routine that is usually performed horseback, the cattle perceived stress and reacted with the response that they were trained with. The photo on the right shows the stance is divergent and they have found security with the herd. The goal of [predator awareness](#) is achieved with calm resolve.

This management tool is practiced and applied long before it is required and is continually practiced and promoted. It is in effect a new livestock handling procedure. We are trying to create a cattle herd that reacts to pressure. The harder the push, the firmer they stand, creating a herd that stops and cannot be pushed, chased or individualized. This method establishes the [standing solution](#) to a predators presence, DOES NOT CREATE A HANDLING PROBLEM. Low stress handling is still encouraged and necessary. [Predator awareness](#) training actually creates a well-mannered herd and instills a quieter and gentler handling responses.

Many daily ranching activities encourage cattle to flee or individualize themselves. Tasks not associated with livestock and their handling, such as irrigating, feeding or monitoring livestock or passing through the field can create movement. "MOVEMENT IS INTENTIONAL, NOT RANDOM." As an example, you are beginning herd training and you are crossing a field and in your path is a cow lying chewing her cud in the direction that you want to proceed on. Traditionally we would just walk on and the cow would have to move, by making your way around her, you begin the process, letting her know that it is OK to stand and the response of standing instead of movement is begun. These actions, though small, are part of creating the [standing solution](#). The training that will follow are all **pressure and release**, with the release being the reward when a calm [standing solution](#) is achieved. We are redirecting our attention to stopping and standing cattle before movement occurs.

If movement is created unintentionally, try to resolve that movement into a stop or pause. For example, the back door of the shop might be close to a water trough. When leaving the shop, you surprise some stock watering, and they flee in response. You have no way to react to stop them other than a soft toned call. Try a quiet call to see if you can create a pause in their flight. Try a call that resembles the sound of a calf (urrrr), effectively stopping the movement rather than pushing.

Canis lupus, the wolf that has entered our area, and the Timber Wolf, is a canine. In order to expose our livestock to stress that resembles the wolf and his predatory skills, we will require dogs. These dogs' primary skills will be stopping and creating the [standing solution](#). (Diagram 1) The dog's role also can be defined as a pseudo predator. It is understood that much of our industry opposes the presence of dogs, but the dogs can help create a pre-conditioned response from our livestock to prevent depredation. If you currently use stock dogs it may be easier and better served to add a dog for the [predator awareness](#) training rather than retraining your dogs.

The beginning of the training depends on your cattle's dog tolerance. If your cattle are familiar with dogs or if they fight and chase dogs without correction, that is a recipe for predator depredation. You must take the time to accustom the livestock to dog presence before training begins. If you already use dogs, but it is in a more traditional movement it will be a challenge to change the communication between your dog the cattle and you.

When a dog is chosen to be the [predator awareness](#) training dog, his job is specific to that effort. Don't use the [predator awareness](#) training dog in combination as a stock dog, and don't use your stock dogs for training of [predator awareness](#). One task seeks movement and one promotes standing. The combination only confuses the effort and the livestock's reaction. Chasing, pushing and barking dogs are not a benefit to the goal of [predator awareness](#) and the [standing solution](#). The desired dog is predominantly a strong, quick heading dog, quick to stop cattle and has a soft responsive handle, traditional stock dogs that are used to move cattle and promote movement are not what we are seeking. Our objective is to achieve the grouping, herding and the [standing solution](#). Dogs that are trained to encourage stopping, instead of directing or pushing.

When you are walking or riding through cattle without your dog there should be a different response than with your dog from your cattle. As you move without your dog, the response should be a calm carefree attitude, even reflecting a relaxed grazing mode reaction to your presence. With the dog's presence, the desired response should be heads up alertness and you should notice a slow but steady grouping, bunching, or herding. This is the beginning of predator awareness.

There are some stock dog breeds that are strong and efficient in shedding, the act of separating an animal from the herd, singling the animal out away from the herd. This is a very usable quality in our goal of establishing herd calmness. By using the shedding method we can encourage that the most stressful place is away from the herd and the most calm place is with the herd. When an individual animal is away from the herd there is pressure and stress, returning to the herd relieves the pressure and promotes herd calmness. This is otherwise known as pressure and release ([Diagram 4](#)).

By controlling the shed and moving to the inside, instead of the normal position of simply returning the stray to the herd on the pressure point of the outside, you are able to position your self between the individual cow and the herd. By sending your dog forward to the head, the dog is turning the individual cow for a return to the herd and you are in position to block the return. Blocking the return creates a greater training opportunity. This opportunity promotes the herd as a place of security and comfort. Blocking reaffirms that the herd is where that animal needs to be. This method is to instill that being away and individualized from the herd creates pressure from our dog and the trainer. Upon the release and it returns to the herd it establishes an awareness of a solution to that stress and pressure, the return to the herd.

The beginning of training is preferred to be done in a confined field with parameters, although it can be preformed on ranges and large pastures that requires more miles. The larger areas will require replacements for tired horses and tired dogs. Starting in a smaller field allows better and slower control. The goal of training herd awareness to deter predators, is that the cattle when confronted, seek each other and bind as a herd. The primary goal is to stop cattle from leaving the herd (Diagram 1), to not to individualize themselves for any reason, but to find safety and comfort with other cattle. Which will promote our objective of cattle learning that the herd is their best defense against predators. Not fleeing or fighting but standing calmly with attention and resolve ([Diagram 5](#)).

The type of cattle you are working with will also affect your efforts in the beginning. All the classes of cattle react differently to pressure. If you are dealing with weaned calves or yearlings, the preferred dog would go forward wider with more distance between the cattle and himself and the effort to stop will take more attempts than it will with dry bred cows ([Diagram 1](#)). Once you have stopped the cattle and they have stood, removing pressure, the day's goal has been achieved. Do not continue that day. As humans, one of our animal training mistakes is to repeat an action to enjoy the result, but the repetition only confuses the effort in the animals mind and they don't connect to the reward, only to more punishment. The reward for the pressure is the release.

INSTRUCTION

The primary goal is that cattle stop and stand. We must understand that the predator's pressures are life vs. death for our livestock. When a stressful situation confronts our livestock, they must react by herding and applying the [standing solution](#). The flight and fleeing as individuals is not an acceptable response from our livestock. We create flight and movement to simulate a predator's pressures, which creates the opportunity to train our livestock that the herd is a safe and calm place. Running or chasing our livestock or even running around them defeats the efforts of the training. Leave the chasing and running to our assistant the dog. The dog's purpose is to simulate a predators presence. As the trainer, our goal is to promote calmness, herding and the [standing solution](#).

Move your cattle to the center of the field and send your dog past the cattle to achieve the stop with forward lateral pressure (Diagrams [1](#) & [2](#)). After they have achieved a stop slowly proceed to your dog. This will create movement and reverse the parallel pressure ([diagram 3](#)). Send your dog forward again recreating a stop. When that stop is achieved. Stand quietly, step back and call your dog to return. Stepping back for a distance is important because it releases pressure. If the cows remain stopped and stand quietly, quit. If there is movement, recreate the stop again. When they are stopped and standing quit. The quit, or the release, is as important as any effort we make. This initial effort of creating the stop will take several days. The reaction will be subtle. The reaction we want to see is when the cattle see us approach they start grouping on their own.

With the stop achieved, we will try to create movement. A slow and steady quiet pressure, steady side to side action, or rocking motion will create movement and an opportunity to recreate the stop. After achieving movement and the ability to create the stop at any desired location, quit. The next step will be increasing the pressure to achieve a faster response, a flight or fleeing reaction from your cattle. This flight or fleeing is intended as a reaction from the group as a group. This simulates a predator's pressure. By creating flight we can promote a stress and pressure that we can use as a training opportunity to promote the **stop** and the [standing solution](#) (Diagram [1](#)). This can be accomplished by trotting towards the cattle or from side to side, or if afoot, jumping up and down. Do not yell, hoop or holler, or use any pressure to intensify a reaction of movement so that we can recreate the stop. Upon achievement of the flight and the stop, quit.

After achieving the desired response of the Standing solution, the next step will be the effort to begin shedding or separating of individuals ([diagram 4](#)). Encouraging individual flight is to simulate a more intense predator pressure. The goal is the separation from the herd where the individual receives pressure. The blocking of the return to the herd creates an understanding that the herd is where the individual can find security and safety. The release of the pressure is the return to the herd. This creates a calm resolve and is [predator awareness](#). The goal is a routine persistent instinct to encourage this reaction from our cattle where their best response is the [standing solution](#) when any pressure or stressful situation evolves.

The goal of [predator awareness](#) is a divergent stance, where cattle are standing in different directions. This is a sign of non movement and they should be standing calmly and show no signs of stress. This content resolve is [predator awareness](#). This training is a change in procedures. We are creating herding instincts that when predators create pressure, our cattle stand. Removing the **chase** and interrupting the predator-prey relationship.

All classes of cattle need to respect the pressure and seek the calmness and safety of the herd. The difference of the type of group and their familiarity to canines will be the determining factor for the length of time it will take to sufficiently instill [predator awareness](#).

This is an ongoing endeavor that is a change in handling. These efforts should be dealt with the seriousness of any other ranch chore that is given its specific attention. As you would not schedule a branding when you have hay to bale, don't schedule other livestock tasks with [predator awareness](#) training. It will proceed into a daily routine but at the beginning give it the full attention it deserves.



The cattle have sought the herd as a defensive position, finding comfort and security with others. They are now prepared to deter [wolves](#), [coyotes](#), [bears](#), and [lions](#).

When we achieve our objective of creating [predator awareness](#) the flight zones become very small or nonexistent once the [standing solution](#) is established. Pressure points only establish grouping and a firmer stance. The cattle have sought the herd as a defensive position finding comfort and security with others. After establishing the [predator awareness](#) stance and its reaction, cattle become accustomed to the training and the desired reaction is instinctual. Without pressure, the cattle graze with [herd awareness](#) contently, until pressure creates the reaction of [predator awareness](#).

Riding through cattle that do not react to your presence becomes the normal behavior until pressure is applied. A light pressure will show that the cattle are still trained with [predator awareness](#). This is recognizable by a movement towards others and a stance as a herd ([diagram 5](#)). This is a training update that should be applied and practiced routinely. When normal moving of cattle with stock dogs occurs, the cattle will perceive pressure and apply the [standing solution](#). Tight quiet control of stock dogs is required or not using them at all.

In Northern California there are many alfalfa fields that interface with juniper studded foothills. The deer often come in for their share of the crop. The deer graze in a herd and are undisturbed until they receive pressure. Upon pressure they leave the field, following the lead. In history it has had many names, follow the leader, follow the follow, follow the draw to name a few. This behavior is observed throughout nature by waterfowl, mammals, fish, and birds, they all follow. The movement of the cattle can be treated the same way. The **lead** in this situation is an invisible tow line or a leash connection between the **lead** rider and the herd.

Using the **lead** cow that knows just where she is going, encourage her to be herd bound. Working in pairs, one person can become the leader while the dog and other person create the parallel pressure to herd and move the cows (Gill, Machen). Reverse parallel pressure will create movement in the opposite direction ([Diagram 3](#)). Also remember that forward parallel will slow or stop movement ([Diagram 2](#)). Starting the cattle with lateral pressure and then riding in the reverse parallel, or opposite of the traveling direction, will create movement in the desired direction. The non-lead rider will fall in and proceed behind the cattle while the **lead** will loop wide and move in the direction the cattle are moving. When passing the cattle, be outside of the flight zone and proceed forward at a trot or extended trot, do not run. This will allow the leader to lead, and movement must continue or the cattle will stop. By using a calm call or song the cattle will soon adopt the lead rider as their leader and follow nicely to the destination ([Diagram 6](#)).

Like a rubber band, too much stretching, or distance in this case, will cause the connection between the lead and the cattle to be broken, though too short of a distance and the **lead** will block and signal a [standing solution](#) in the herd. Proper distance for the **lead** rider is determined by the situation, type of stock being led and the terrain being traveled. For example, when gathering yearlings in open flat to moderately hilly country, the lead may be a hundred yards up to a quarter mile in front of the stock. Mother cows in the mountains with a twisty trail will be closer, from 20 to 50 yards. With a repetitive call or song the leader creates a connection with the livestock. Repetition in this helps the tow line and strengthens it. The volume should be a connection between the **lead** and the stock in tow. If too loud, it acts as hooping and hollering and deters the lead action and alerts possible predators who may become curious and follow. Too low and soft and the connection will be missing. If the lead connection is broken, it may be repaired by returning and leading again. It may be possible to start the reverse parallel pressure to recreate the movement, then looping forward to reinstate the connection. It could also be as simple as eye contact and calling calmly. This is something that will be behavior learned with time and practice.

The speed to travel is determined by the stock being led, yearlings on the flats will have a faster pace than cows on a mountain trail. The cattle set the pace and the lead has to match their speed while maintaining the connection. While maintaining the connection, the lead needs to be aware of the surroundings looking at the terrain for complications, watching the cattle for exhaustion or thirst. Gates are an obstacle on all operations. As the **lead** arrives at the gate, stop and stand, creating a [standing solution](#), until the tail of the herd is in that group. Then open the gate and walk on. If the tow line is intact proceed on. If the connection is broken, repair it. Moving the herd, the mindset needs to be “the objective and the goal, not the procedure and its duration.” Remember to avoid tight timelines.

By using the **lead** approach, we stop driving cattle. Driving cattle disconnects our efforts from creating [herd awareness](#), and the action of driving cattle away only strengthens the

reaction of fleeing and the **chase**. We want to eliminate that predatory response and promote **herd awareness**. The **lead** is a solution to the problem of moving **predator aware** cattle. It is a versatile way of moving cattle in general, but it is not necessary for cattle that are not conditioned with the **standing solution**. Cattle that have received **predator awareness** training, and are confident in the **standing solution**, are easily started and proceed nicely with the reverse parallel pressure and then rear pressure. Connecting with a **lead** only establishes the direction to proceed in calmly and quietly. If the cattle have been exposed to a predator and were not equipped with **predator awareness** training, and they will not drive, the best approach is to lead them.



The lead, a rider in front of the cattle, as they follow.

One concern is that the cattle that are exposed to predators are highly excited and aggressive towards stock dogs making them difficult to move. (J. Williams, D.E. Johnson, P.E. Clark, L.L. Larson and T.J. Roland) These cattle have learned **predator awareness** the hard way. If they are educated by predators, and they will be, then our pressures are equal to the predators. Human presence relays fear and stress, making handling a rough and challenging situation. But if **predator awareness** is established, then the stress is released and movement is something that they have already experienced in training.

By creating the solution of how cattle should react when presented with conflict, their behavior becomes one of calm fortitude and providing a secure place to oppose an apex predator's presence. Presented and taught by the ranchers themselves, we are removing the fear and stress that is associated with the pressure of the chase while realizing that predators exist and cattle have a risk of contact. These efforts we make to improve our management practices create a solution that ranchers can instill into their livestock operations with a practice of **stockmanship**. That will add to the bottom line and create a positive approach in a very hostile and costly environment.



Pictured above, CON cows have not been exposed to wolves, WLF cows have been exposed to wolves. This is [predator awareness](#) the hard way. Studies of the stress related to simulated wolf encounters, and the difference to cattle exposed to wolves and cattle that had no previous exposure have been completed. (R.F. Cooke, B.I. Cappelozza, M.M. Rise, D.D. Johnson, M.M. Norman, J. Williams, and D.W. Bohnert)



In Northern California the feed grounds offer an excellent risk and reward venue, and is a very good location for training. There are different areas and time frames that can be used for training such as winter feeding or calving time, although calving time has its separate but definite challenges. The key is anytime is appropriate for training as long as it is prior to turn out and exposure to an apex predator. The more time that can be practiced creating [predator awareness](#) is a value. It is not unusual to see cows standing at the gate waiting to be fed and then mobbing the hay wagon. By applying pressure and moving the herd to the center of the field where they stand receiving [predator awareness](#) training, the [standing solution](#) becomes a calm, resolute herd, waiting patiently for the training to end and breakfast to begin. They have the reward of calm herd security. When they are released they have the reward of the hay. What becomes prevalent after several training mornings instead of being at the gate ready to mob the wagon they are in the center of the field standing calmly as a herd waiting to be fed, calmly, without mobbing the hay wagon, which has the benefits of less injuries to cows and calves.

As mentioned previously calving time creates its own challenges. Cows prefer to leave the herd and find a nesting and birthing spot that they find comforting. Individualizing themselves from the herd. This seclusion is instinctual, not a time to be training [herd awareness](#), but a time when monitoring predators presence could be considered good management. Pairs, cows with a baby or young calf, can provide an effective training opportunity. It will help to understand which cows are at risk for individualizing themselves and being vulnerable to a predator, as well as leaving their calf as the second course of a predators meal. The desirable response from the cow is to tighten to her calf and stand firmly or move and seek other cattle with her calf. The pressure to the pair must be soft in the beginning and after several attempts should have the pair seeking the herd and the herd's comfort and security. A cows response to a predator's pressure should be to seek others, stand firm and react as [musk ox](#) or [bison](#) and deter predation. The key that we are seeking is a group standing calmly in a divergent pattern.

We deal with several predators, but management of some predators have parameters set by law. Most ranches have rotational and seasonal grazing areas and calving times that coordinate to the feed and its availability and the local weather. Calving dates are set in stone for most ranches and can not be altered. Sometimes calving areas can be moved, but often that is cost prohibitive. The economic structure of each ranch and geographic parameters have established deadlines and dates that each operation must adhere to for financial sustainability.

Other effective predator management solutions can be used but they also have costs and challenges. Human presence will deter most predators. Twenty-four/seven monitoring, or patrolling, is not a realistic solution. But daily monitoring of the edges of the calving area and scenting are realistic options. The fear of humans is strong in most predators and that fear can be used to our advantage. When using the scenting approach, frequently change the locations of the scent, around once a week, and be careful not to overdo applications or repeat the use of specific scents. All of the scents related to humans, such as colognes, deodorants, soap, and cleaners need a light approach, more is not better in this case, and do not repeat the same scent for several weeks. Some good scenting items are an old farmers ball cap that is destined for the trash, an unwashed tool that may be placed for a week then moved to a new location. Just like attracting predators with scent for trapping or predators being attracted to bone yards, scent can spook predators and deter their presence just as other scents attract.

During turn out, there is still the predator presence. If training begins during this time, it will be challenging, but doable. When teaching [predator awareness](#) on an open range, one of the greatest challenges is the expansive area and the cattle dispersement, and the distance between individuals and others. It must be understood we are *stopping* cattle and holding them, but the chance of getting the same cattle for a repeat session may not exist for a period of time. So the effort to establish [herd awareness](#) draws out to a more intensive session. After achieving the [standing solution](#), we leave, hopefully to locate our next group and then return

later to visit the first group. Upon our return, success is seen when their reaction is grouping with their [herd awareness](#). We spend a little more time encouraging [predator awareness](#), and then return to the second group only to repeat the first group's training. Each group would be of different number of animals, but it would be ideal for each group to be about 6 to 10 pair. This training venue will take much more effort than training in other locations. But the positive side is that human presence is established, fulfilling the [predator awareness](#) training and the range rider task. (Antonelli et al. 2016)

Training [predator awareness](#) here is better spent using other deterrent practices on open ranges and large pastures. Mentioned above was the practice of scenting. All of the suggestions apply to open range but the distances require more product. There is still a need to change scents or items frequently and the rule of more is not better, still applies. There have been many talks and opposition to **Range Riders**. It is as effective as the riders are capable. Their understanding of the range or pasture is key, as well as its geography, climate, operations of the area, their livestock awareness and handling capabilities. All these work well with the continued management efforts and the task of instilling herd reaction and practicing [predator awareness](#). Although **Range Riders** have had positive results, the cost factor is a downside. The **Range Rider** costs are high, to hire a person to an area of the operation that has never required a laborer before takes most operations backwards. Another deterrent that has been mentioned, although an unproven hypothesis, is belling the cattle. There is more research that is needed to accredit that scenario but investigations seem to support the conclusion that belled cattle are less likely to be at risk.

Risk assessments are a useful management tool to understanding predator behavior and mitigating predatory risk. A **risk assessment** is an evaluation of a producer's operation and its dynamics along with the predatory risks that may be there now or in the future. Predatory behavior, habitat, geography, and production risks are all evaluated and a summary presented. With the identification of predatory risks, a suggested plan can be worked out between the rancher and the assessment service provider, a [proactive stewardship](#) solution. There are those though that wish to participate in [proactive stewardship](#) and share in the costs associated with those practices. Although the practice has economical benefits, it is a challenge for us ranchers to change and operate outside our ranches' traditional parameters, but [proactive stewardship](#) has its rewards. Recommendations to mitigate risk through legal proactive measures is the objective of a **risk assessment**. Choosing a risk assessment service should have some careful consideration. An ideal risk assessment service will have local industry awareness, knowledge of the predators, a thorough understanding of the geography, climate and range conditions as well as having strict confidentiality standards.

Since there are not many available management resources to prevent the wolf and livestock confrontation, it is important that actions don't jeopardize the efforts and allow our opponent, the wolf, to get the upper hand. Large pastures, open ranges or areas that have

predatory potential, should not be the pasture that you send older feeble or crippled cows to. The larger the calf, the greater the independence that calf will have and will show an increased desire to be on its own. The individualizing and singling out is what this training is trying to prevent. Younger pairs have a tighter mother to calf bond and a better tighter grazing relationship. They may be a better choice for some areas that may have predatory potential. Also trying to prevent things that attract, such as bone yards, hunting aftermath and noises such as weaning or separation and even yelling or hooping and hollering.

If sick or distressed livestock are found, remove them, unless they are doctored at the location. Then, make sure they are left with other livestock settled and content. While checking and riding open range be aware of the environment and the surroundings, such as tracks, signs, and trails, not only looking at predator existence but signs of cattle disturbance. Some things to look at would be their feces and its placement, their travel routes, and disposition. When riding be attentive to your dogs, they will alert you to many signs, any canid, or scrap of evidence. Their route or path often is where tracks will be found along with game trail intersections. Sounds and signs of birds can alert you to issues of concern. Be aware of drinking areas, cattle and other tracks and become familiar with roads and trails that cross or intersect with game trails.

One of the management solutions is human presence. In order for it to be effective, the **wolf** must fear man and establishing contact with wolves only diminishes the wolves fear. It is comparable to the "old saddle horse", safe and sound, and to recreate his bronc attitude of youth is not possible. Once the wolves fear of humans is gone his demeanor only becomes emboldened. Making the effort to chase or harass him only substantiates that you can't pursue him far enough or pose any punishment effective enough to deter him from returning. It is unknown if wolves, like domestic canines, recognize individuals and their scents, or if it is more broadly applied to all humans. In order to keep the fear of humans we must stay mysterious and as elusive as the wolf is to us. Keeping his fear of humans in our management arsenal is key to human presence working as a deterrent. On a ranching operation, an effort to deter or discourage the wolves presence by contact may only instill a bolder curiosity. Without the fear of the risks it may only encourage the wolf to return. Our efforts as ranchers should focus on our livestock, remember ***we do not chase wolves, we tend livestock.***

DIAGRAMS

Diagram 1: THE STOP

The stop is the basis for creating “THE Standing solution” and achieving “Predator awareness”. By accomplishing the stop and encouraging flight, and then stopping the cattle again, you are instilling herd awareness. With pressure and release you are establishing that the herd is a calm and secure place.

1. The Stop



Diagram 2: FORWARD PARALLEL PRESSURE

Parallel pressure creates movement or removes it. FORWARD PRESSURE acts as a brake, slowing or stopping movement. It is applied at the outside edge of the flight zone. The closer the pressure to the flight zone the greater the brake. The further away from the flight zone only aids in slowing. Slightly further out has no effect and is considered the passing zone.

2. Forward Parallel Pressure

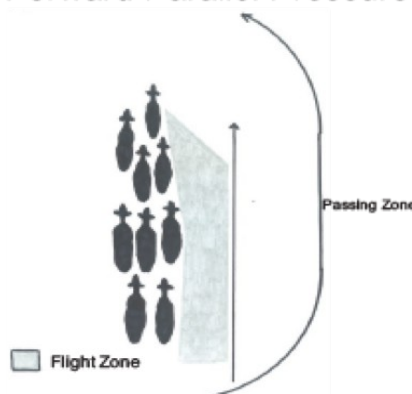


Diagram 3: REVERSE PARALLEL PRESSURE

Reverse parallel pressure creates movement in the opposite direction the pressure is applied. The speed created is the proximity to the flight zone. The closer to the flight zone, the quicker the pace; the further out, the slower the pace.

3. Reverse Parallel Pressure

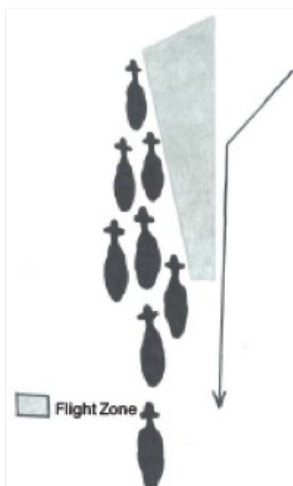


Diagram 4: THE BLOCK

By encouraging shedding and blocking the return you are establishing that by being individualized the cow receives pressure. The reason for the block is to establish the understanding and encourage the desire to return to the herd. The return when aloud, is the relief of pressure, establishing the herd as a safe and calm place.

4. Shedding

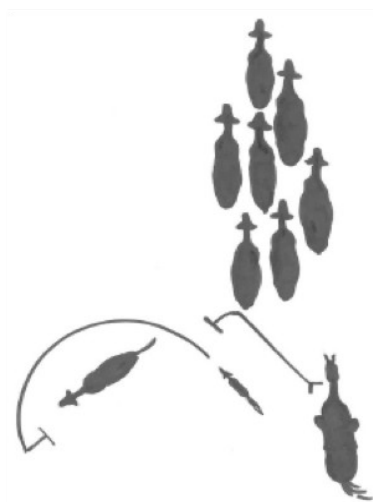


Diagram 5: STANDING SOLUTION

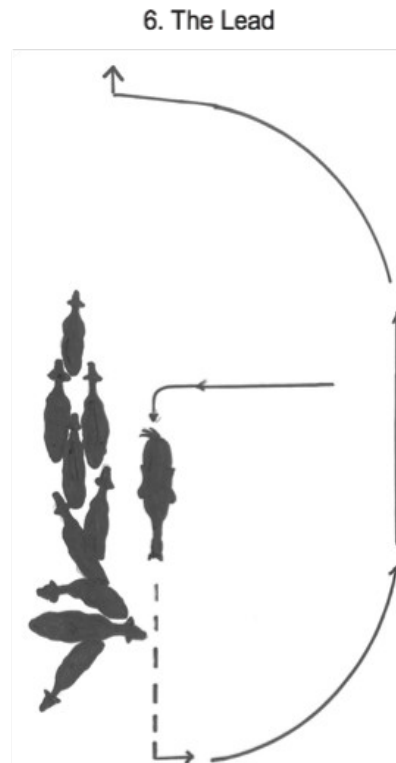
This is our goal, movement removed, divergent stance, with calm resolve.

5. Standing Solution



Diagram 6: THE LEAD

By establishing the standing solution we are creating herding instinct that creates changes in driving cattle (or a predators pressure) they may drive and stand, drive and turn then stand. With the lead we connect to the cattle and create a calm reaction of movement. With lateral pressure, and then turning to reverse parallel pressure to create movement. Then looping to the direction desired and establishing a visual and verbal connection, we can proceed to our desired destination.



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Glossary of Terms

apex predator - a predator that is at the top of the food chain.

dry bred cows - bred cows not lactating

flight zone - an invisible perimeter area that when encroached upon creates movement

heading dog - stock dogs of any breed have instinctive approach bred into them. They will instinctively move to areas of a cow each time they challenge a cow. A head dog proceeds to the head of a cow.

musk ox - a ruminant species of North America that defends against predators by grouping in a circle.

pairs - Mother cow with a nursing calf

pressure point - an invisible perimeter area that a cow becomes aware of a presence, yours or others

replacement heifers - young females selected to become future cows

weaned calves - calves removed from mother cow to prevent nursing.

yearlings - sub adults

COMMENTS AND OBSERVATIONS

Some of the comments that have been mentioned prior to the projects completion was that it was too large of a project to be effective. The actual training is basically a simple effort. Our livestock have a natural faded instinct of herding. The [stockmanship](#) approach, and applied management practices will soon have our livestock reacting as herd groups. Creating a proactive solution for predator livestock confrontation.

Through the efforts of training the [standing solution](#), one of the observations has been how subtle the reactions become. Individual livestock awareness becomes more obvious in response to their surroundings and any movement within their increased awareness zone. Livestock heads come up and evaluate the risk. If the risk seems minimal the heads go back down and they resume eating. If the risk is stressful they begin a movement towards others.

Prior to the [wolf's](#) presence and developing [predator awareness](#) training, our ranch historically had predatory losses. Predominantly coyotes but we have lost a few to lions also. What we have noticed for the last several years is no losses to any mammal predator.

“After the wolves have consumed all the natural prey, such as deer and elk, it will be extremely difficult to keep them from consuming livestock. Behavioral methods of controlling predation of livestock will be impossible if most of the natural prey has been eaten.” Temple Grandin

Livestock often choose the least difficult path. Predators also choose the path of least resistance. By creating cattle that have a resistance to pressure, [predator awareness](#), the predator may just move on, choosing a less challenging opponent.

All deterrents are a challenge to measure whether they have been successful or not. The most successful action may be having a neighbor that does nothing.

A comment that has been posed to this method, is the [wolf](#) will just learn to attack the herd. In the wild there is not a predator that will attack an entire herd at once. That is reserved for *man* and we call it *war*.

Special thanks to the [USFWS](#), Yreka, CA
<https://www.fws.gov/yreka/>