UNDERSTANDING COW SIGNALS

And their importance to management

SO MANY RABBIT HOLES, SO LITTLE TIME!

It's ALL behavior:
- Heat detection
- Disease and Lameness
- Calving behaviors (before, during and after)
- Evaluating facility design and performance
- Employee evaluation

BEHAVIOR-BASED MGT. VS. TASK-ORIENTED MGT.

- Let the cows do the work
- Opportunistic and flexible
- Reduced disruptions
- Strives for "invisibility"

BALANCE AND HARMONY

When one is out of balance, the others must compensate.
- Increased stress levels
- Decreased production, well-being and efficiency
- Difficult to maintain good people, healthy cows, or have nice things
Animals of prey - fear is first response

Detail oriented

First impressions are everything

Understand body language, not the English or Spanish language

You can get cows to do just about anything!

Cows

Vast majority of cow communication is non-verbal - so BE QUIET

Head and Shoulders = nucleus of flight zone

Angle and distance determine route and rate

Stay out of the blind spots

Eye contact, body angle and intent (energy)

Move fluidly

Be consistent - everybody, everyday

Gentle encouragement

Cow Behavior

Cows are ALWAYS telling you something

Head, eyes, ears

Body posture and orientation

Tail position

Timing of defecation

Cud chewing

Not all cows are cut out to work with people

Jettison dead weight and bad apples

Cows really don’t like you

Many activities involve restraint, injection

You look like a predator might look

Two of you look worse

The Truth About Dairy Cattle


**THE “ALL BY MYSELF” PRINCIPLE**

- Patience and flexibility
- Short-term apparent sacrifice of efficiency
- Long-term results, encouraging future productive and independent behaviors
  - Ex: Training cows to come into the parlor unassisted

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**THE TRUTH ABOUT DAIRY CATTLE**

- Cows aren’t clever or defiant
  - They can’t lie to you
  - It serves no purpose
- Cows are 100% innocent
  - Mantra: “This was my fault”
  - Fear, avoidance, self-defense, and curiosity - not crimes
- Cows don’t like choices, and can’t read minds
  - They want CLEAR INSTRUCTIONS
  - People and facilities
- Cows remember the bad times
- CONDITIONING STARTS AT BIRTH AND NEVER STOPS

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**THE “ALL BY MYSELF” PRINCIPLE**

- How can we harness natural behaviors to accomplish our required tasks?
  - One person jobs
  - Encourage (train) productive behaviors
  - Reduce physical labor
  - Reduce stress on people, animals and facilities
- What do we need to do to accommodate natural behaviors?
  - Daily time budget
  - COWS ARE LIKE LITTLE KIDS!
PEOPLE

- The best qualified cow person is often an owner or manager who isn't as involved directly with cows as in years past.
- The majority of cattle personnel are inexperienced.
- Often trained by untrained people.
- Focused more on the task than on the effect on the cattle.

GOOD HELP IS HARD TO FIND (BUT CAN BE DEVELOPED)

- Job descriptions and protocols.
- Meetings.
- Observation and communication.
- Assign jobs that best suit personality and ability.
- Jettison dead weight and bad apples.
- Connect the dots between behavior, health, efficiency and production.
- Establish goals.
- Want to learn and do a good job!

THE CHALLENGE

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- The majority of cattle personnel are inexperienced.
- Often trained by untrained people.
- Focused more on the task than on the effect on the cattle.

GOOD CATTLE PEOPLE

- Patience, compassion and curiosity.
- Think like a cow.
- Walk away from a bad situation.
- Work alone effectively.
- Actively strategize cattle activities.
- Let cows do the work- adhere to the "All By Myself" philosophy.
- Find the humor in working with cattle.

THE PROBLEM WITH PEOPLE

- Not animals of prey.
- Have other things to do.
- Highly distracted.
- Don't see boredom as an AWESOME TIME!!

FACILITIES
**BALANCING THE EQUATION**

- Clear instructions—don’t offer options
- Gross sort > staging > final sort > restraint
- Good gate placement= one good person
- Less muscle, less athleticism= less stress, less swearing
- Strategic (temporary) dead ends
- Manipulate sight lines
  - Parlor, barn-wide open
  - Hoof trimming shoot, laneways, holding area—limit distraction
- Consistent lighting, consistent floor texture
- ONE PERSON JOBS

**COWS DO LIKE....**

- Walking into the wind
- Eating into the wind
- Going home—circular traffic patterns
- Mechanical instruction over human instruction
- Turning around or going behind a gate at a dead end

**COWS DON’T LIKE....**

- Shadows
- Wet, shiny surfaces
- Entering a dark space
- Choices
- Loud noises
- Things that look like people
- Sharp turns
- Sort lanes with drastically diverting traffic patterns

**GATES AND REDUCING OPTIONS**

- Cross alley
- Freestalls
- Headlocks

**VIEW FROM A ROBOT- LOOKS LIKE A PERSON!**

**GATES AND REDUCING OPTIONS**

- Cross alley
- Freestalls
- Headlocks
- Cow is squeeze gate
MY THREE BEST FRIENDS

- The gate
- The rope
- The stick

THE ROPE = NO DISRUPTIONS

Shhh. Sleeping!

Ready for breeding

CHEAP LIGHT DUTY GATE = ONE COW + ONE MAN

“All By Myself!!”

MOVING COWS SAFELY - SORT STICK

Magic wand

Good employee training

Primitive weapon

Absence of training

THE ROPE = ONE COW + ONE MAN

First milking, limited choices, found the grain “All By Myself”

“I DON’T TRUST THE GUYS”

- Do you really have people you don’t trust working for you?

OR

- Do you have people who need training?
**TRAFFIC AND SIGHT LINES**

- Beef cows - the extreme situation
- Normal traffic pattern
- Limited sight lines, reduces fear of what's ahead
- Circular traffic - feels like going home

- Gross sort
- Staging
- Restraint

**BALANCE & HARMONY-ACCOMMODATING COWS' NEEDS**

- Circular coral limits sight line, saves space
- Sort lane mirrors normal return traffic
- Dedicated area for loading trailers
- Cows turn around at dead end
- Separate foot bath lane, same pattern

**DAILY TIME BUDGET**

<table>
<thead>
<tr>
<th>Activity</th>
<th>Time devoted to activity per day</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eating</td>
<td>3 to 5 h (9 to 14 meals/d)</td>
</tr>
<tr>
<td>Lying/resting</td>
<td>12 to 14 h</td>
</tr>
<tr>
<td>Social interactions</td>
<td>2 to 3 h</td>
</tr>
<tr>
<td>Ruminating</td>
<td>7 to 10 h</td>
</tr>
<tr>
<td>Drinking</td>
<td>30 min</td>
</tr>
<tr>
<td>Outside pen (milking, travel time)</td>
<td>2.5 to 3.5 h</td>
</tr>
</tbody>
</table>

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**BEHAVIOR-BASED DESIGN**

- Cows prefer head to head stalls
- Two external feed alleys - cows prefer to eat facing the weather

- Home - leave 'em alone
- Work - get in get out

**MANY DISRUPTIONS**

- Pushing
- Bedding
- Vaccinations
- Repro shots
- Breeding
- Herd health
- Pen moves/ sorting
- Hooftrimming
- Sick cows/ fresh cow examinations
- Heat detection
- Feeding
MINIMIZING THE EFFECT
- Coordinate and combine activities
- Efficient use of headlocks
- Utilizing sort pens, palpations rails, etc.
- Timing activities with feeding and milking
- Be flexible, plan ahead
- Use the rope, work in the stalls rather than chase cows

TECHNOLOGY AND BEHAVIOR
- Helps fill in skill gap with inexperienced employees
- Has helped facilitate growth of dairies
- Enhances but not replaces sound cattle skills

OTHER FACTORS
- Stocking density
- Stall availability and comfort
- Bunk space
- Feed bunk management
- Grouping strategies
- Pen move frequency
- Pen size

CONCLUSIONS
- It's OK to seek perfection!
- Do your employees know this stuff??
- Be a partner, not a master
  - Who works for who? Does it matter?
- Think like a cow
- The lowest cost investment you can make is just doing things better

TECHNOLOGY AND BEHAVIOR
- Utilize behavior
  - Sort gates and lanes
- Monitor behavior
  - Activity
  - Rumination
  - Lameness
  - Tail chalk
- Manipulate behavior
  - Ovsynch

BALANCE AND HARMONY
Happy cows=healthy cows=reduced incidence of disease and injury=better reproductive performance=increased milk production=less work=happy employees=reduced stress=more efficiency=one person jobs=reduced labor costs=more opportunities=......