



## Feed Intake in Brangus Cattle: Experiences and Recommendations

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Evaluation  
Center

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### Facility

- 96 Calan™ Gate facility
- Since 1978
  - 3,170 bulls
  - 264 research animals
  - 548 Brangus heifers




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### Timeline for Feed Intake

- 21 day training period
- 70 day trial period



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### Calan™ Gate Technology

- Each gate has its unique radio frequency
  - Frequency emitted constantly
  - Gates require electrical source
- Gates are activated when animal places sensor with the right frequency in the middle of gate
- Recording of feed consumption must be done manually

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### Keys to Training

- Attention to detail
- Patience




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### Before Animals Arrive



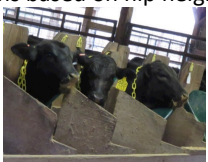
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### Upon Arrival

- Place animals in pen and allow to settle
  - Offer hay
  - Place 5 lbs. of concentrate/bunk
- Once cattle are settled, sort animals into final pens based on hip height and weight



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### Observation is Key

Pen	Tag	Time	12/28/2016	12/29/2016	12/30/2016	1/1/2017	1/2/2017	1/3/2017	1/4/2017
1	209013	AM	40.5, 102.11	11.8	11.7, 1.8	11.10	11.9	11.9	
	PM		31.30	11	11	11.5	11.5	11.5	
1	20905	AM		5					
	PM				11.1			11.10	
1	23023	AM		1					
	PM				11.1				
1	3003	AM	11.8	11.1, 8.9	11.9, 11	12	12.1		
	PM			11	11.10	11	11.1		
1	33208	AM		12	11.10	11	11	11.1	
	PM				11.10	11	11	11.1	
1	48802	AM	11.2	11.2	11.2	11.12	11.12	11.12	
	PM				11	11.12	11.12	11.12	
1	541013	AM				11	11	11.12	
	PM					11	11	11.12	
1	53504	AM							
	PM								
1	54107	AM				11.10	11		
	PM					11.10	11		
1	6610	AM		11	11.10	11	11	11	
	PM				11	11.10	11	11	
1	780	AM		11	11	11	11	11	
	PM				11	11	11	11	
1	9909	AM				11	11	11	
	PM					11	11	11	

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### Observation is Key

- Important to observe each animal is eating
  - At this point tension is off the spring and gates stand open
  - Hopefully all animals are observed eating regularly within 5 days
  - Allow animals access to outside if they are electric fence trained

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### Keep Observing

- Once all animals are eating
  - Tighten springs
  - Tape cellinoids open
  - Continue to observe which animal eats from what gates
- Hopefully all animals will be observed eating within 3 to 5 days
- Analyze bunk data and assign gates to animals.
- Fit sensors to animals
- Lock gates

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### Now the Work Begins

- Some animals will open their assigned feed gate as soon as they return to their pens
  - Goal is to have ¼ to ½ of barn trained in 24 hours
  - Goal is to have ½ to ¾ of barn trained in 3 days
  - By Day 4, you will need to start intervening
- Watch for animals that are stealing feed
- If an animal is aggressively looking for feed, try to coax them to their gate

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### After Day 4

- Work with individual animals that are not opening their feed gates
  - Lock in pen
  - Open gate and see if animal will come to gate and eat
  - If not, tie gate open and leave alone and see if will eat
  - If not, place feed in pan and see if animal will eat from pan
- Work with animals individually
- Once animals go back on feed, watch feed intake carefully to prevent rumenitis


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### Be Prepared

- To spend a lot of time working with the animals that aren't getting it
  - Spending 3-4 hours/day is not uncommon
- To be frustrated and want to give up
- To be patient, patient and even more patient
- To go to the end of your rope plus 1 day




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### Problem Cattle

- Cattle which are excitable
- Cattle which are timid
- Cattle which are mentally slow
- Cattle which don't like concentrate
- The worst are the excitable, yet timid cattle



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### Training Results with Brangus Heifers

Trial	No. Heifers In	No. Trained	% Trained
1	92	80	87.0
2	96	89	92.7
3	52	49	94.2
4	36	34	94.4
5	38	38	100.0
6	96	85	88.5
7	80	70	87.5
8	96	84	87.5
Total	586	529	90.3

Primary Reason Heifers did not train

- Excitable Temperament, but timid
- Excitable Temperament and would not stay in fence
- Would not eat concentrate

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### Performance Results

RFI Classification	No.	On-Test Age, d	On-Test Wt., lbs.	Off Test Wt., lbs.	ADG, lbs./d	Intake, lbs.	FE, f/g	RFI
Low	80	296	722	949	3.25	1482.1 <sup>a</sup>	6.10	-1.66 <sup>a</sup>
Medium	339	295	702	929	3.23	1714.6 <sup>b</sup>	6.97	-0.05 <sup>b</sup>
High	70	292	701	920	3.13	1955.6 <sup>c</sup>	8.40	1.73 <sup>c</sup>

### Computational Results

- Can determine ADG using regression or standard method of finding ADG
- Adding ultrasound BF to RFI model did not increase model R<sup>2</sup>

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### Performance Results

Comparison	Difference	Cost Difference
Medium vs Low	233 lbs	\$37.98
High vs Low	474 lbs	\$77.26
High vs Medium	241 lbs	\$39.28

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### Conclusions

- For best results in a Calan™ System, cattle should be:
  - Used to people on foot
  - Not excitable with bad habits
- Patience and attention to detail are required to be successful

