



## Stress Management of Arrival Calves in the Feedlot (Trial Summary on Back)

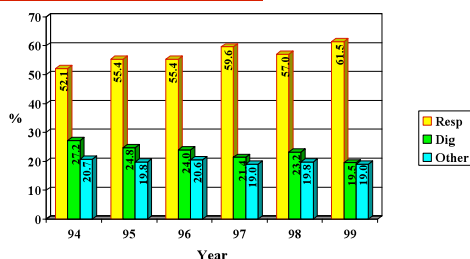
### Introduction

During the process of weaning and receiving cattle, stress becomes the number one enemy of cattlemen. Stress factors that have the largest impact on arrival calves include: excitement, temperament, fatigue, shipping, environmental factors, previous nutrition and management.

The biological effect that stress has on an animal greatly reduces dry matter intake of feed and reduces immunity response to pathogens. All of this results in reduced growth rate, feed efficiency and carcass grade, as well as increased morbidity and mortality.

Morbidity and mortality continue to be a major cause of concern for feedlots. In fact, economic losses from BRD (Bovine Respiratory Disease) in the U.S. exceed \$800 million annually.

Percent of total death loss by attributed cause of loss and summarization category\*



Changes in the U.S. Feedlot Industry 1994-99: NAHMS August 2000

\*All Sentinel Feedlots

The cost of BRD is seen on its effect on animal performance and this is typically manifested in a sub clinical state. The effect that BRD has on performance is compounded as an animal is treated multiple times. Please see *Effect of Post Weaning Disease on Carcass Traits, Feedlot Performance, and Mortality*.

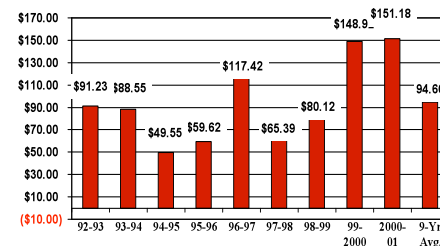
### Effect of Post Weaning Disease on Carcass Traits, Feedlot Performance and Mortality

	Number of Treatments			% Change
	0	1	2	
Prime, %	1.9	1.1	0.9	-52.6
Premium Choice, %	21.5	19.5	15.2	-29.3
Low Choice, %	48.8	43.4	42.8	-12.3
Select, %	25.2	30.1	30.5	+21.0
Standard, %	2.6	5.9	10.6	+307.7
Yield Grade 1 & 2, %	52.3	65.8	71.7	+37.1
Yield Grade 3, %	44.9	32.8	28.1	-16.8
Yield Grade 4&5, %	2.8	1.4	0.2	-2.6
ADG, lbs.	3.24	3.13	3.07	-5.2
Mortality Rate, %	0.1	3.7	8.7	+8600

Source: Busby, Strabbehn, Boedle, and Carab

The most extensive study on the effect of health on profitability is the Texas A&M Ranch to Rail Program. This program has shown that the difference in profitability between sick and healthy calves can be well over \$100 per head.

### Ranch to Rail Data 1992-2001: Impact of Health on Profitability



Adapted from: Texas A&M Ranch to Rail Summaries 92-93 to 2000-2001 (9 Reports)

### Stress Management Alternatives

Due to tightening margins and the impact that calf health has on profitability, cattlemen have continually looked for ways to improve arrival calf health. In recent years, there has been increased scrutiny over the use of antibiotic therapy to treat sick cattle. This has actually led to the emergence of many natural beef marketing programs.

Cattleman's Choice Loomix, LLC is a leader in developing new technologies that have a positive impact on cattlemen's bottom line through proper nutrition. This leadership continues with the development of:



Cellarat-ORE CPR contains the ingredients needed to quickly condition the rumen and get cattle on feed. Cellarat-ORE CPR contains organic trace minerals and vitamins at a level that allows a calf to easily adapt to stress. Cellarat-ORE CPR also includes an innovative feed additive called Cellarator that is developed from European technology, where reliance on antibiotic therapy is not allowed.

### Research

A trial was conducted at Zwickl Bar 6 feedlot in Nebraska to evaluate the effectiveness of Cellarat-ORE CPR on the health status of newly-arrived stressed calves into a feedlot environment. Steer calves were received to the feed yard over approximately a three week period and were split into control and treatment groups. The calves received were freshly weaned that required a 10+ hour trip to the feed yard. Control calves averaged 467.08 lbs. and treatment calves weighed 439.53 lbs. The treatment groups were fed 30 lbs. of Cellarat-ORE CPR. All other protocols were identical for control vs. treatment cattle.

### Results

Treatment calves saw a dramatic reduction in the amount of first and repeat treatments when compared to control groups. In fact, the total amount of "pulls" in the treatment group was reduced by 68.02%. The treatment group also saw a substantial reduction in its "chronic" and "mortality" rate.

The total medicine cost was greatly reduced for the treatment group vs. control. The control group had a total medicine cost of \$5,616.39 compared to \$3,036.06 for the treatment group, which reflects a reduction of 45.94%. The costs for medicine are raw treatment costs and do not include any charges for handling or labor.

### Feedyard Trial: Zwickl Bar 6 Cellarat-ORE C.P.R.

	<u>Control</u>	<u>Treatment</u>
# of Head	869	921
Heifers or steers	steers	steers
1st Pulls	200	108
%	23.01%	11.73%
2nd Pulls	96	28
%	11.05%	3.04%
3rd Pulls	53	4
%	6.10%	0.43%
4th Pulls	32	1
%	3.68%	0.11%
5th Pulls	23	0
%	2.65%	0%
6th Pulls	10	0
%	1.15%	0%
7th Pulls	3	0
%	0.35%	0%
8th Pulls	1	0
%	0.12%	0%
<b>Total Pulls</b>	<b>416</b>	<b>141</b>
%	<b>47.87%</b>	<b>15.31%</b>
<b>Chronics*</b>	<b>53</b>	<b>4</b>
%	<b>6.10%</b>	<b>0.43%</b>
<b>Deads</b>	<b>6</b>	<b>0</b>
%	<b>0.69%</b>	<b>0%</b>
<b>Med. Cost/Head</b>	<b>\$ 6.46</b>	<b>\$ 3.30</b>
<b>Total Med. Cost</b>	<b>\$5,616.39</b>	<b>\$3,036.06</b>

\*Chronics = Pulled 3+ times

Med. Cost/Head = Total Med. Cost/Total # of Head

### Summary

	<b>Control</b>	<b>Treatment</b>
Med. Cost	<b>(\$5,616)</b>	<b>(\$3,036)</b>
Deads	<b>(\$2,942.60)</b>	0
*ADG Diff.	0	\$23,485
<u>Program Cost</u>	<u>0</u>	<u>(\$6,907)</u>
<b>Total</b>	<b>(\$8,558.6)</b>	<b>\$13,542</b>

\*Based on performance difference of .17 ADG for sick vs. healthy calves. See Busby, Strohhahn, Beedle, and Corah.