



OKLAHOMA

PROFILES IN soil health

Jimmy Emmons
Dewey County, Oklahoma
2,000 acres
Crops: Wheat, alfalfa, canola, cow/calf operation
Covers: Multi-species



unlock the

**Stop being afraid of what
could go wrong, and start
being excited about what
could go right.**

1. Armor the soil.
2. Minimize soil disturbance.
3. Increase plant diversity.
4. Keep living roots in the ground all year.
5. Integrate livestock grazing.







































Cover allowed to grow for 45-50 days
before rotational grazing began



Cattle grazed in August into early September



Grazing system design based on forage and animals available

- Cover crop produced about 6950 lbs/ac
- Goal was to graze about 25% (1,740 lbs/ac)
- 13 cows (1,100 lbs) and calves (536 lbs) pairs = 21,268 Total pounds
- 42 weaned calves (663 lbs) = 27,846 Total Pounds
- Estimated herd weight 49,114 lbs
- 11 acre paddocks using electric fence
- Approximately 818 lbs/ac stock density
- Herd moved every 3-4 days
- Final utilization estimate 22%

Grazed 60 ac. of Cover Crop for 39 days

Average Gain: Weaned 2.0 lbs/day

Non-weaned 2.9 lbs/day

	Weaned	Non-weaned		
Number	42	13		
Weight In	663	536		
Price	\$1.97	\$2.03		
Value/Head	\$1,306.11	\$1,088.08		
Weight Out	741	649		
Price	\$1.90	\$1.99		
Value/Head	\$1,407.90	\$1,291.51		
Weight Gained	78	113	Total Value	Value/Ac.
Value Gain	\$101.79	\$203.43		
Total	\$4,275.18	\$2,644.59	\$6,919.77	\$115.33
Total Wt. Gain	3276	1469	4745	86.3

Landry Howell

Cordell, Ok

3.6 Head Per Ac.

Avg. weight of 475

Avg. Daily Gain 2lb

That is 504 lbs of beef

On a 70 day test

Monte Tucker

Sweetwater, Ok

Planted a mix of 15 species cover crop on
June 20 after a 1.3 inch rain.

Turned out 371 head of 580lb heifers on
Aug 29 on 205 ac. coming from a full
feed starting yard.

Heifers gained 2lbs a day for 32 days.

24,680 lbs of beef at .35 a lb or \$8640
worth of gain on such limited rain fall!!!
Monte has only had 3.4 inches of rain
since early spring

















Milo- 3lbs

Buckwheat- 2.5lbs

Flax -1lb

Mung Beans- 5Lbs



WARM SEASON FLOWERING // \$1.15/LB

Full Seeding Rate 30#/acre ♣ In A Mix Rate: 10#–20#/acre

Plant 1"–1.25" deep when soil temps are in the low to mid 60's

- ✿ Cowpeas
- ✿ Mung beans
- ✿ Guar
- ✿ Sunn Hemp
- ✿ Sesame
- ✿ Sunflowers
- ✿ Okra
- ✿ Buckwheat
- ✿ Flax
- ✿ Grain Sorghum



















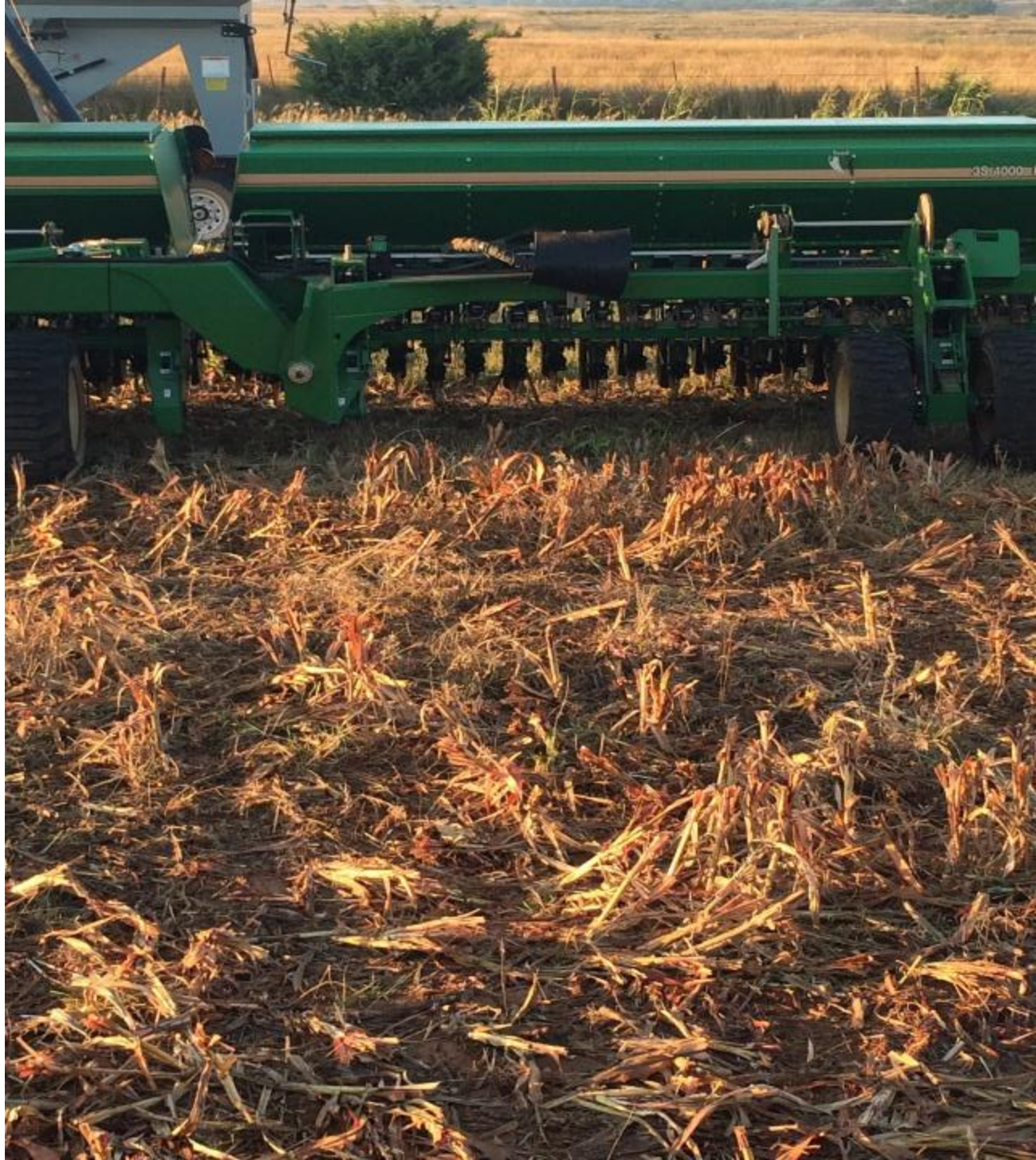
























49 Steers on 65 Acres

Steers averaged- 625 lbs

Gained -3.2 Lbs a Day
























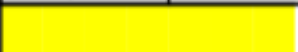








No Cover Crop



Cover Crop















Cover Crop

		Very Low	Low	Optimum
Total N	1.64			
Total P	0.15			
Total K	1.66			
<i>Macronutrients</i>		Very Low	Low	Optimum
Ca	0.24			
Mg	0.29			
Na	0.02			
S	0.25			
<i>Micronutrients</i>		Very Low	Low	Optimum
Zn-ppm	28.00			
Mn-ppm	37.00			
Fe-ppm	193.00			
Cu-ppm	5.00			
B-ppm	4.00			
<i>Petioles</i>		Very Low	Low	Optimum

Very Low or Problem	Comments:
Low	
Optimum	
High	
Very High	

No Cover Crop

		Very Low	Low	Optimum
Total N	1.48			
Total P	0.17			
Total K	1.73			
<i>Macronutrients</i>		Very Low	Low	Optimum
Ca	0.20			
Mg	0.24			
Na	0.02			
S	0.20			
<i>Micronutrients</i>		Very Low	Low	Optimum
Zn-ppm	15.00			
Mn-ppm	47.00			
Fe-ppm	57.00			
Cu-ppm	4.00			
B-ppm	3.00			
<i>Petioles</i>		Very Low	Low	Optimum

Very Low or Problem	Comments:
Low	
Optimum	
High	
Very High	



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