



Research, Validation and Commercialization of Technologies

## **SGP+™/SGP+™(2.0)**

# **A Technological Shift in Bovine Ration Management**

### **Fundamental Questions:**

- 1. Is it Safe?**
- 2. Does it Work?**
- 3. Will it Increase Profits?**
- 4. Is it Environmentally Friendly?**

### **The Answer to All 4 Questions:**

**YES!**  
**Here's why:**

# 1. Is SGP+™ Safe?

## Video Evidence



1. Newly acquired F-1 Brangus Heifers being introduced to SGP+™.
2. In 12 years and over 3000 beef and dairy heifers fed SGP+™ and a trial in India with SGP+(2.0), NO cattle harmed.
3. Ration must managed to gain herd acceptance over a 4-6 week period.
4. Manure Scoring and other Performance Measurements can be used to guide the process; e.g.,
  1. Milk Production
  2. Milk Fat Content
  3. Herd Weight Gain
  4. Herd Health



# 1. Is SGP+™ Safe?

**All ingredients in SGP+™ are either approved by the F.D.A. or U.S.D.A. or both.**

- A Fundamental value of IFUS is human and animal safety.
- All ingredients in SGP+™ have been safely fed and/or applied to humans and animals for thousands of years.
  - For example, Mastic is considered “liquid BandAide™”, while “Carob” is considered a complete food.
- In feed trials of over 3000 beef heifers and 1500 Dairy cows, ranchers and dairymen for over 10 years have reported with commentary, videos, pictures , and data, that SGP+™ has shown only positive impacts on herd health.
- Furthermore, the trial on dairy heifers in India also proved to be without health or safety issue.

- See SGP+2.0™ Formulation Nutri-Mastic Content Rev.1-22Mar25-eea

- See SGP+2.0™ Formulation Carob Content Rev.1-22Mar25-eea

- See SGP+2.0 Formulation Sugarcane Bagasse Content Rev.1-22Mar25-eea

# 2. Does SGP+™ Work?

## Forage Analysis

### Forage Analysis Results

- ▶ By Forage Analysis performed by Cumberland Valley Analytical Services on 80%SGP+™/20% Cracker Corn prepared at Deer Run Ranch, Jefferson, Texas, SGP+™ shown to have 6.5% CP and 49.1% TDN (% Dry Matter)
  - ▶ Not enough CP or TDN by this analysis method
  - ▶ See “CVAS-Standard-34710041-DEER RUN RANCH-1.pdf”
- ▶ However, the CP and TDN also comes from other sources.
  - ▶ Manure Scoring tells the story
    - ▶ See Scientific Studies in “SGP+2.0(tm) Formulation Protein Content Rev.6-23Mar25-eea”
    - ▶ Item 1
- ▶ IVTD: Analysis on SGP+™™ by the L.S.U, Southeast Research Station Forage Quality Lab averaged:
  - ▶ IVTD = 47.5%

### Forage Analysis Limitations

- ▶ Forage Analysis NOT designed to provide adequate analysis on CP and TDN from SGP+™ or SGP+2.0™
- ▶ See “SGP+2.0(tm) Formulation Protein Content Rev.6-23Mar25-eea”
  - ▶ Item 2 and Item 4
- ▶ IVTD on untreated bagasse averaged = 32.6%
  - ▶ The shift of 15% + stunned the L.S.U. Team as they could not at the time explain this *in vitro* improvement,
  - ▶ Since that time, over a dozen Animal Scientists, Nutritionist, and DVM's have been consulted.
    - ▶ Each report the same, that after considering Herd Performance, it is clear that Forage Analysis is inadequate to demonstrate the efficacy of SGP+™, and this includes IVTD Analysis.
    - ▶ However, all claim that something remarkable is going on with the SGP+™ formulation.

# 2. Does SGP+™ Work?

## Manure Scoring

### Herd Performance Drives the Science

#### Manure Scoring Results

- ▶ By Forage Analysis performed by Cumberland Valley Analytical Services on 80%SGP+™/20% Cracker Corn prepared at Deer Run Ranch, Jefferson, Texas, SGP+™ shown to have 6.5% CP and 49.1% TDN (% Dry Matter)
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- ▶ However, the CP and TDN also comes from other sources.
  - ▶ Manure Scoring tells the story
    - ▶ See Scientific Studies in “SGP+2.0(tm) Formulation Protein Content Rev.6-23Mar25-eaa - Item 1.0)

#### Manure Scoring Method

- ▶ Forage Analysis NOT designed to provide adequate analysis on CP and TDN from SGP+™ or SGP+2.0™
- ▶ However, based on “Manure scoring determines supplementation needs” (See “SGP+2.0(tm) Formulation Protein Content Rev.6-23Mar25-eaa” Items 2.0 and 4.0), a Score 3 Manure Pat provides:
  - ▶ 12-15% CP
  - ▶ 62-70% TDN
- ▶ With ten (10) years of feeding SGP+™ to over 3000 heifers and calves, Herd Performance is substantiating these nutritional numbers.
- ▶ The next group of Slides in this deck tells the story.

## 2. Does SGP+™ Work?

Grade 3 Manure Patty  
Indicates Optimum Mix,  
Digestion, and  
Absorption of Ration

**Manure Scoring:**  
For Approximate Levels  
Of Dietary Protein and Energy  
TDN = Total Digestive Nutrients



See: “Manure Scoring Determines Supplementation Needs”, Dr. Robert Wells, Noble Research Institute, Noble News and Views, October 2013

<https://www.noble.org/news/publications/ag-news-and-views/2013/october/manure-scoring-determines-supplementation-needs/>

**“A Manure**  
**Score 3 =**  
**12-15% CP**  
**62-70% TDN of**  
**diet.”**

## 2. Does SGP+™ Work?

Grade 1 Manure Patty  
Indicates a Least Desirable  
Score. CP and TDN are  
imbalanced for proper  
digestion and absorption.

**Manure Scoring**  
For Approximate Levels  
Of Dietary Protein and Energy  
TDN = Total Digestive Nutrients

Grade 3 Manure Patty  
3 Weeks on SGP+™  
Schmidt Ranch,  
Jefferson, TX



See: "Manure Scoring Determines Supplementation Needs", Dr. Robert Wells, Noble Research Institute, Noble News and Views, October 2013

<https://www.noble.org/news/publications/ag-news-and-views/2013/october/manure-scoring-determines-supplementation-needs/>

Grade 5 Manure Patty  
Indicates a Highest /  
Least Desirable Score.  
Very dry patty indicative  
of poor quality forage  
inadequate protein/  
carbohydrate with low  
quality fiber; i.e.,  
undigestible lignin.

## Does SGP+™ Work?

### Manure Scoring

For Approximate Levels  
Of Dietary Protein and Energy  
TDN = Total Digestive Nutrients

Grade 3 Manure Patty  
3 Weeks on SGP+™  
Schmidt Ranch,  
Jefferson, TX



See: "Manure Scoring Determines Supplementation Needs", Dr. Robert Wells, Noble Research Institute, Noble News and Views, October 2013

<https://www.noble.org/news/publications/ag-news-and-views/2013/october/manure-scoring-determines-supplementation-needs/>



## 2. Does SGP+™ Work?

**Manure Scoring**  
For Approximate Levels  
Of Dietary Protein and Energy  
TDN = Total Digestive Nutrients

Manure Pats from India  
Trial  
15% SGP+2.0™

Day 1 Manure

Day 15 Manure



Note the transformation  
and formation of the  
divot in the middle

See: “Manure Scoring Determines Supplementation Needs”, Dr. Robert Wells, Noble Research Institute, Noble News and Views, October 2013

<https://www.noble.org/news/publications/ag-news-and-views/2013/october/manure-scoring-determines-supplementation-needs/>

## **2. Does SGP+™ Work?** **Post-Feed Cattle Video**



Deer Run Ranch, Jefferson, TX  
Reports by Schmidt's, their Crew, and Visitors.

1. Score 1 of 10 Herd was on SGP+™.
2. When first placed on SGP+™ Herd Improved to Score 5 of 10.
3. Hurricane Ida disrupted production and herd removed from SGP+™.
4. When removed from SGP+™ herd declined.
5. Herd back on SGP+™ as shown and is once again improving.
6. And, after over 10+ years of safe application, more positive discoveries are being realized.

## 2. Does SGP+™ Work?

### Beefing and Finish of Calves



- Ranchers in Texas and Louisiana are reporting:
1. Record weight gain and finish of calves being fed SGP+™.
  2. One rancher reported 1.1lbs of weight gain for 3.1lbs of ration mixed with 60% SGP+™.
  3. All ranchers are reporting high success rates in overall health, wellness, and performance of calves
    - a. At Deer Run Ranch, heifers reported to impregnate faster and easier, have an easier time giving birth without assistance, and a significant reduction in infant mortality.

# Does SGP+™ Work?

## Colostrum Dripping from Bag Picture

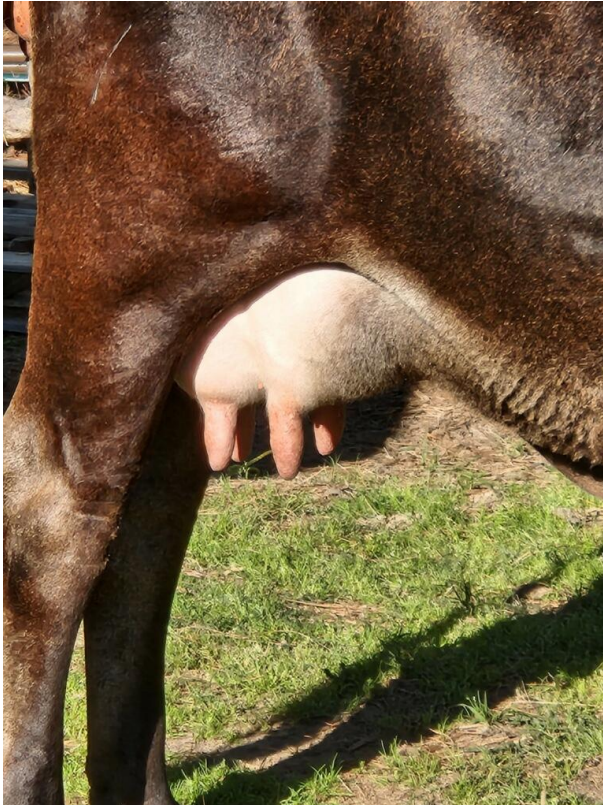


### Deer Run Ranch, Jefferson, TX

Reports by Schmidt's, their Crew, and Visitors.

1. Heifers being reported to drip colostrum prior to dropping calf.
2. Colostrum being reported as rich and thick with yellow tint.
3. Calves being reported as incredibly lively and many are self-weaning off of heifer early.
4. Overall health and weight gain being reported as outstanding.
5. Other ranchers are reporting similar results.

## **2. Does SGP+™ Work?** **Bags Swollen with Milk**



Deer Run Ranch, Jefferson, TX  
Reports by Schmidt's, their Crew, and Visitors.

1. Heifers being reported to produce incredible quantities of rich, beautifully yellowish milk.
2. This is far beyond normal for beef heifers of this breed.
  - a. Note the swollen teats on the heifer

## Does SGP+™ Work?



### Added Trials:

- A new rancher in Louisiana has added SGP+™ into their ration management.
  - First calves being born reported as the healthiest ever.
  - Also, rancher is reporting reduced urine smell, reduced manure smell, no fly larvae in manure, and a significant reduction of flies.
- A Blind Trial at the Oklahoma/Kansas border now in the 4<sup>th</sup> Herd rotation proving highly successful.

## 2. Does SGP+™/SGP+2.0™ Work?

### Data:

Here's what ranchers are showing us and telling us:

When applied as a technology in ration management, ranchers and dairymen report with pictures, videos, and commentary on over 3000 Head of Angus Heifers (in eleven locations in multiple herds), 1500 Holstein Heifers, 250 plus Mixed Breed Heifers, and 100 Angus Bulls:

- Improved overall health and wellness of heifers.
- Improved health and wellness of progeny born within herds.
- Improved estrous cycle amongst heifers.
- Reduction in the quantity of high-priced feed stocks and high-energy “junk-food” fed to heifers (e.g., grains, hay, supplements, chicken waste, candy fall-off, etc.)
- Reduction in the quantity of manure and urine produced as well as the concentration of ammonia smell in urine along with less burping and runny, gaseous manure.
- Reduction in antibiotic application and other medications.
- Improvement in heat tolerance and hydration of heifers.
- Improvement in muscle mass, milk production, finish, and overall quality of heifers as well as a marked improvement in meat quality.

### **3. Does SGP+™/SGP+2.0™ Reduce My Costs?**

**YES!**

(Based on Forage Cost Alone = \$208/Ton Forage and Best Practices)

#### **What Does This Mean?**

- ALL ranchers applying SGP+™ as a technology and product in their specific ration management are reporting significant savings.
- One rancher in Louisiana was preparing to liquidate his herd as his feed costs exceeded \$3/ day / head.
- SGP+™ allowed him to reduced his daily cost/head/day to less than \$0.60/head/day.
- Hence, he has saved his herd as he is again profitable...not to mention the other benefits he is reporting.
- Deer Run Ranch reporting record profits.
- See: “Here Are Some Custom Grazing Rates”, Alan Newport, “Farm Progress”, August 1, 2018
  - <https://www.farmprogress.com/management/here-are-some-custom-grazing-rates>
- See: “Supplementing Beef Cows”, David Lalman, Oklahoma Cooperative Extension Service, Division of Agricultural Sciences and Natural Resources, Oklahoma State University, AFS-3010, October 2021
  - <https://extension.okstate.edu/fact-sheets/supplementing-beef-cows.html>



## **4. Is SGP+™ Environmentally Friendly?**

### **No More Loose Runny Manure or Solid Bricks with Smell**



Schmidt Ranch, Jefferson, TX  
Reports by Schmidt's, their Crew, and  
Visitors.

1. Initial SGP+™ Ration Modification
2. Manure Score 5 Patties (on Right) transitioning into Manure Score 3 Patties (on Left)...actually more of a Manure Score 4 Patty.
3. Measuring Input / Output and reconciling to Herd Performance
  - a. Ration adjusted to Manure Score 3, then Herd Performance Improves

## **4. Is SGP+™ Environmentally Friendly?**

### **No More Loose Runny Manure or Solid Bricks with Smell**



Schmidt Ranch, Jefferson, TX  
Reports by Schmidt's, their Crew, and  
Visitors.

1. Manure Score 3 Patties throughout pasture when SGP+™ mixed properly and proportionately with their ration.
2. No odor from manure = no fly larvae = no flies on cows = no CH<sub>4</sub> as lignin digested in ecological manner.
  - a. See SGP+2.0™ Formulation Environmental Impact Content.



## **Is SGP+™/SGP+2.0™ Environmentally Friendly?**

### **Data (See: SGP+2.0™ Ration Part 13: Environmental Impacts)**

Ranchers are reporting:

- Reduced Carbon-load from excessive respiration and waste elimination; i.e., well-formed and well-stacked manure that does not smell vs. runny, flat, smelly manure or bricked up manure.
- Reduced urea smell from urine.
- Reduction in antibiotic application
- Reduction in flies...resulting in less pesticide application.
- Now, ranchers are reporting reduced water consumption of their herds such that by their calculation SGP+™ is being shown to reduce water consumption such that enough water would become available to feed the 8.55 million head on aquifer water in the U.S. 20lbs of corn with 8% water left over.
- See: “Reducing Greenhouse Gas Emissions from Cattle Production”, Julia Lindgren, Institute of Agriculture and Natural Resources, University of Nebraska, Lincoln, October 4, 2019
  - <https://water.unl.edu/article/animal-manure-management/reducing-greenhouse-gas-emissions-cattle-production>
- See: “Ways to Reduce Methane Production in Cattle”, Mandi Jones, Institute of Agriculture and Natural Resources, UNL Beef, University of Nebraska-Lincoln, February, 2014
  - <https://beef.unl.edu/reduce-methane-production-cattle>



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# SGP+™

## Feeding Ration #1:

(Based on Herd Performance & Best Practices)

- Introducing SGP+™ has proven to be accepted differently by different herds.
  - In one case, a rancher with 10 different herds on one ranch found acceptance from little to none to literally gobble it up in the adjacent pasture (which in all ways was identical)...all with registered Black Angus.
- SGP+™ is significantly more than a simple like-for-like replacement of your present ration.
  - SGP+™ is designed to restore natural pro-biotic balance (primarily GOOD bacteria) in your herd.
  - These GOOD bacteria aide in both digestion and absorption.
  - Once these GOOD bacteria do their job, they die and become your actual protein source (as Nature designed it).
  - Hence, your ration becomes healthier, less expensive, and is being shown to produce better results for your herd.

• See: “Ways to Reduce Methane Production in Cattle”, Mandi Jones, Institute of Agriculture and Natural Resources, UNL Beef, University of Nebraska-Lincoln, February, 2014

• <https://www.impactfusionbrands.com>  
<https://beef.unl.edu/reduce-methane-production-cattle>

204 Hwy LA1011, Napoleonville, LA 70390

Phone: 1-800-775-4130

# SGP+™

## Feeding Rational #2:

### IFUS recommends based upon Best Feeding Practices and Herd Performance and Manure Scoring, the following:

- Step 1: Initially mix per your specific mixing operation 15% SGP+™ to 85% of your present ration.
  - Introduce the ration per your normal feeding practices.
- Step 2: Once your herd is accepting the feed, allow roughly 2-4 weeks for their digestive system to adjust.
  - Remember, SGP+™ is also designed to heal the digestive system.
- Step 3: After 2-4 more weeks (depending on herd acceptance and performance), adjust your ration to 30% SGP+™ to 70% of your normal ration.
- Step 4: After 2-4 more weeks (depending on herd acceptance and performance), adjust your ration to 45% SGP+™ to 55% of your normal ration.
- Step 5: After 2-4 more weeks (depending on herd acceptance and performance), adjust your ration to 60% to 40% of your normal ration.
- Step 6: After 2-4 more weeks (depending on herd acceptance and performance), adjust ration to 80% of your normal ration.

# SGP+™

## Short Term (4-6 Weeks) Performance Observations Commonly Noted by Ranchers and Best Practices:

- Once accepted, herds should run to feed.
- Manure should transform from Manure Score 1 and/or 5 into Manure Score 3.
- Manure should lose much of its odor.
- Fly larvae and dung beetles should disappear, followed by a reduction or elimination of flies on cattle.
- Urea smell should decrease from urine.
- Sick cows should show improvement.
- See: “Manure Scoring Determines Supplementation Needs”, Dr. Robert Wells, Noble Research Institute, Noble News and Views, October 2013
  - <https://www.noble.org/news/publications/ag-news-and-views/2013/october/manure-scoring-determines-supplementation-needs/>

# SGP+™

## Mid-Term (6-12 Weeks) Performance Observations Commonly Noted by Ranchers and Best Practices:

- Milk Production in lactating heifers should increase in quantity and quality.
  - Bags will be noticeably larger.
- Colostrum should start dripping prior to delivery of calf and should be plentiful and rich after calf drops.
- Infant miscarriage and infant mortality should decrease while calf health should improve.
- New born calves should gain weight and finish quicker.
- Meat Quality on harvested calves should improve.
- General health, weight gain, finish, and overall quality should become obvious.
- Manure Score 3 should be the norm.

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## **Long-Term (4-6 Months) Performance Observations Commonly Noted by Ranchers and Best Practices (Part 1):**

- Manure and urine smell should be virtually gone.
- Manure Score 3 should be wide spread in pasture.
- Manure should decrease as cows become digestibly healed, probiotic balance is restored, and absorption improved; hence, requiring less ration.
- Urine should be less frequent as cows become more easily hydrated; hence, requiring less water.
- Milk and Colostrum Production should be notably improved in both quality and quantity.
- Overall health of the herd should be visibly obvious and supported by a reduction in antibiotics and other required medication to treat otherwise sick cows.





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# SGP+™

## Long-Term (4-6 Months) Performance Observations Commonly Noted by Ranchers and Best Practices (Part 2):

- Improved overall health and wellness of heifers.
- Improved health and wellness of progeny born within herds.
- Improved estrous cycle amongst heifers.
- Reduction in the quantity of high-priced feed stocks and high-energy “junk-food” fed to heifers (e.g., grains, hay, supplements, chicken waste, candy fall-off, etc.)
- Reduction in the quantity of manure and urine produced as well as the concentration of ammonia smell in urine along with less burping and runny, gaseous manure.
- Reduction in antibiotic application and other medications.
- Improvement in heat tolerance and hydration of heifers.
- Improvement in muscle mass, milk production, finish, and overall quality of heifers as well as a marked improvement in meat quality.

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## Supporting Documentation (Part 1):

- “Manure Scoring Determines Supplementation Needs”, Dr. Robert Wells, Noble Research Institute, Noble News and Views, October 2013
  - <https://www.noble.org/news/publications/ag-news-and-views/2013/october/manure-scoring-determines-supplementation-needs/>
- “Spot Livestock Problems Early By Checking Manure Daily,” Rhonda McCurry, Farm Progress, February 26, 2018
  - <https://www.farmprogress.com/livestock/spot-livestock-problems-early-by-checking-manure-daily>
- “Here Are Some Custom Grazing Rates”, Alan Newport, “Farm Progress”, August 1, 2018
  - <https://www.farmprogress.com/management/here-are-some-custom-grazing-rates>
- “Evaluating a Cow’s Manure Output Can Provide You With Valuable Input!”, Ministry of Agriculture, Food and Rural Affairs, 19October2012.
  - <http://omafra.gov.on.ca/english/crops/organic/news/2012/2012-10a2.htm>

# SGP+™

## Supporting Documentation (Part 2):

- “Supplementing Beef Cows”, David Lalman, Oklahoma Cooperative Extension Service, Division of Agricultural Sciences and Natural Resources, Oklahoma State University, AFS-3010, October 2021
  - <https://extension.okstate.edu/fact-sheets/supplementing-beef-cows.html>
- “Beef Cattle: Beginners Guide to Feed Costs”, Family Farm Feedstock
  - <https://familyfarmlivestock.com/beef-cattle-beginners-guide-to-feed-costs>
- “Determining How Much Forage a Beef Cow Consumes Each Day”, Rick Rasby, Institute of Agriculture and Natural Resources, UNL Beef, April 2013
  - <https://beef.unl.edu/cattleproduction/forageconsumed-day>
- “How Does a 1,200 Pound Cow Get Enough Protein?”, Sam Westreich, Sharing Science, August 27, 2018
  - <https://medium.com/a-microbiome-scientist-at-large/how-does-a-1-200-pound-cow-get-enough-h-protein-506797b53845>



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# Supporting Documentation (Part 3):

- “Beef Cattle Nutrition: The Cow’s Digestive System,” Whitney Rounds and Dennis B. Herd, Beef Cattle Nutrition, Texas Agricultural Extension Service, B-1575
  - <https://beefskillathon.tamu.edu/cows-digestive-system/>
- The Importance of Energy Nutrition for Cattle, OSU Extension Service, Oregon State University, October 2018
  - <https://extension.oregonstate.edu/animals-livestock/beef/importance-energy-nutrition-cattle>
- “Reducing Greenhouse Gas Emissions from Cattle Production”, Julia Lindgren, Institute of Agriculture and Natural Resources, University of Nebraska, Lincoln, October 4, 2019
  - <https://water.unl.edu/article/animal-manure-management/reducing-greenhouse-gas-emissions-cattle-production>
- “Ways to Reduce Methane Production in Cattle”, Mandi Jones, Institute of Agriculture and Natural Resources, UNL Beef, University of Nebraska-Lincoln, February, 2014
  - <https://beef.unl.edu/reduce-methane-production-cattle>



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## Supporting Documentation (Part 4):

(See [www.impactfusionbrands.com](http://www.impactfusionbrands.com))

- SPP+ & SGP+2.0 In