

## **Crystal Creek Now Offers 25/25 Calf Milk Replacer: Another great high gain milk replacer option**

In calf nutrition, selecting the right milk replacer is one of the most critical decisions you make in the first weeks of life. Two high quality options that Crystal Creek® carry are the Swift Start™ 25/25 and 25/18 — both with 25% crude protein, but differing in fat content: 25% vs. 18%, respectively. Crystal Creek® offers both formulations and while both products support healthy growth, their differences affect body composition, energy balance, digestive health, and overall calf rearing goals.

Swift Start™ 25/25 calf milk replacer is designed to more closely match the fat and protein content of whole milk, which typically runs around 30% fat and 26% protein on a dry matter basis. This approach may have benefits for calf immunity and digestive health but differs from the approach of the 25/18.

This article breaks down the differences between the 25/18 and the 25/25, how they affect lactose levels, osmoality, immune function, calf body composition, and long-term development — helping you choose the right fit for your feeding program.

### **1. Nutrients and Ingredients:**

Both the Swift Start™ 25/25 and 25/18 milk replacers contain 25% crude protein, sourced from a blend largely composed of dairy proteins, with small amounts of hydrolyzed wheat protein and porcine plasma. While whey and skim milk proteins remain the base for digestibility and performance, these formulas use hydrolyzed wheat protein (a plant-based source) and porcine plasma (a high-quality animal plasma source rich in immunoglobulins and functional proteins). These ingredients provide cost-effective, highly digestible amino acids and support gut and immune health, especially in young calves with underdeveloped digestive systems.

The second number refers to fat content: 25% in the 25/25 and 18% in the 25/18. This is where all the difference lies between the two formulas. The fat source in both milk replacers is made up from a blend of animal fat along with palm and coconut oil to accurately mimic the digestibility of milk fat. This blend of fats provides a unique blend of long and short chain fatty acids that are highly digestible to the calf, providing an efficient energy source.

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### **2. Body Composition Differences: Fat vs. Frame Growth**

One key difference between these replacers lies in how calves grow:

- 25/25: Higher fat levels mean more dietary energy, which calves can use for both lean tissue and fat deposition. Research has shown that compared to a 25/18, calves grown on a 25/25 will have higher body condition scores. This is not a bad thing, and higher levels of body fat can produce calves that are more robust and supports immune

function in the face of health challenges. While higher fat milk replacers do have many positives, they need to be balanced properly with amino acids and paired with the correct starter strategy. Too much fat and not enough amino acid supply can lead to over conditioning with not enough frame growth. This can limit frame size and cause fat deposition in developing mammary tissue, potentially limiting milk production as a two year old.

- 25/18: With lower fat and slightly higher lactose, this formula supports lean growth and skeletal development, especially when paired with strong starter intake. Feeding a high protein, lower fat milk replacer aims to develop a larger, deeper framed heifer that can eat more as a mature animal. Lower fat intake does typically lead to slightly less body condition if all other factors are equal. This does mitigate fat deposition in mammary tissue and can support more appropriate udder development. While still driving excellent calf health and development, calves on a lower fat milk replacer may have less fat stores to endure health or environmental challenges.

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### **3. Lactose Levels and Osmolality: Digestive Health Considerations**

Osmolality is the number of dissolved particles in a solution. Ingredients like lactose can increase osmolality, while higher inclusion rates of fat have a much lesser impact. When osmolality is too high, ingredient digestibility is decreased and risk of scours is higher.

Because fat does not affect osmolality directly, a 25/25 milk replacer usually contains less lactose than a 25/18 formula, making it gentler on the gut.

- 25/25: Lower lactose → Lower osmolality → Lower risk of nutritional scours, especially in calves under 3 weeks old.
- 25/18: Higher lactose → Higher osmolality → Greater need for careful mixing and monitoring to avoid diarrhea.

No matter which formula you choose, mixing beyond recommended solids (usually ~12.5–14%) can increase osmolality and cause scouring — especially if water quality or calf health is compromised.

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### **4. Energy and Immunity:**

Calves need energy not just for growth, but for survival and immune function — especially in cold or stressful conditions.

- 25/25 provides more energy per pound thanks to its higher fat content. This supports:
  - Immune system strength
  - Thermoregulation
  - Faster rebound during illness
  - Better absorption of fat soluble vitamins like A,D, and E.
- 25/18 provides perfectly adequate energy, but it is less energy per pound than the 25/25. It is more important to focus on overall feed volume to deliver calories for calves being fed the 25/18, especially in cold winter weather.

Summarizing the Key Differences:

Feature	25/25 Milk Replacer	25/18 Milk Replacer
Crude Fat	25%	18%
Protein Quality	Dairy, porcine plasma, hydrolyzed wheat protein	Same
Energy Density	High	Moderate
Body Composition	Lean + fat gain	Lean frame growth
Lactose Content	Lower	Higher
Osmolarity	Lower	Higher
Cold Stress Performance	Excellent	Moderate; needs more volume

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#### Final Thoughts

Both the Swift Start™ 25/25 and 25/18 milk replacers provide high-quality nutrition for pre-weaned calves. The functional proteins support gut integrity, enhance immunity, and help bridge the transition from colostrum to starter — regardless of fat content.

The key differences come down to calf body composition goals, energy needs, osmolarity risk, and farm philosophy. Choose 25/25 when looking to provide the closest alternative to whole milk, grow calves with higher body condition, and lessen the risks of high osmolality. Opt for 25/18 when looking to build rapid lean musculoskeletal growth and productive udder development.

As always, success depends on more than just the bag. Feed clean, mix accurately, monitor performance, and adjust as needed. Work closely with a Crystal Creek® nutritionist to choose the right milk replacer and build a successful calf program.