FEED ADDITIVES

While the goal of a nutrition program is to provide the proper level of nutrients to meet a pig's needs for growth and performance, there are times when additional nutrients can be beneficial. The amount of feed additives and their intended purposes are many and far-ranging. The information below will focus on the general use and potential benefits of the most commonly used feed additives.

- **Copper chloride**

  Copper chloride has been shown to have a growth-promoting quality in nursery and growing pigs. Generally, levels between 125–250 ppm of copper act as an anti-microbial and help to decrease the growth of disease-causing bacteria in the gut. Higher levels of copper are effective in improving ADG and feed efficiency in growing pigs. The use of copper at high levels (above 250 ppm) can increase the risk of toxicity and can have negative effects on pig performance.

- **Essential oils**

  Essential oils are aromatic, oily liquids derived from materials such as flowers, leaves, fruits and roots. Essential oils can act as antimicrobials and antioxidants, enhancing the immune response and reducing diarrhea in pigs. Interest in essential oils continues to grow, especially with antibiotic-free nutrition programs. Individual essential oils have different specificities, which has led to inconsistent results. The value of a multiple-oil product is a more consistent response given the diversity of gut bacterial populations at different farm locations and at various times. Encapsulating essential oils protects them, improves palatability and make them heat stable.

Nursery

- **Zinc oxide**

  Research has shown improvements in nursery pig growth rates and a reduction in diarrhea when pigs are fed therapeutic levels of zinc oxide (up to 3,000 ppm).

Finishing

- **Magnesium oxide**

  Most cereal grains and plant protein products contain high levels of magnesium, so with proper care and a carefully formulated diet, a magnesium deficiency should not be a concern. However, some studies have shown that supplementary levels of magnesium can reduce stress and aggressive behavior in pigs. Magnesium oxide can be added to swine diets at a rate of 5–10 lbs. per ton to reduce stress and cannibalism.

- **Potassium chloride**

  Potassium chloride can be added to late finishing diets to help reduce shrink during marketing. The typical inclusion rate is 1–2 lbs. per complete ton of feed.

Feed Additives for Consideration

Hubbard Feeds offers several products that we recommend when additional nutritional support is needed. These products are collectively known as our OptiCare line of feeds. A few of the more popular products are highlighted below:

- **Assist** is a combination of copper chloride and a yeast culture product designed to be used in grow-finish pigs. Copper chloride has been shown to improve average daily gains. The yeast culture product helps pigs manage stress caused by specific disease challenges and is a tool to reduce the mortality associated with hemorrhagic bowel syndrome (HBS).
- **Opti-Remedy** is a blend of essential oils that reduces harmful bacteria in the gut. The combination of essential oils from oregano, thyme, cinnamon, capsicum and citrus fruit extract also promotes the growth of beneficial bacteria in the gastrointestinal tract. Opti-Remedy can be used in all stages of pig production.
- **Opti-Pak Efficiency** is a nutrition fortification pack formulated for the last 40–80 lbs. of gain in finishing pigs. Opti-Pak Efficiency improves average daily gains and feed conversion by increasing the digestibility of the diet.
- **AllBite** blocks are a great alternative to discourage vice behaviors, such as tail biting. AllBite blocks add a new stimulus to the environment, allowing pigs to exhibit foraging behaviors and to bite and chew on the block instead of their pen-mates. AllBite also contains nutritional ingredients that have a calming effect on pigs.