POULTRY

PLASMA ENHANCES IMMUNE EFFICIENCY AND GUT DEVELOPMENT RIGHT FROM THE START
Our story began over 35 years ago when APC scientists discovered the powerful role plasma derived functional proteins play in helping support and maintain normal immune function in baby pigs. Since that initial discovery, our scientists have seen powerful, consistent and effective results in poultry and other species.

APC’s spray-dried red blood cell and plasma products are used in animal feed diets and other industries to add value through the unique properties that positively impact billions of animals each year.

**OUR MISSION IS TO HELP ANIMALS THRIVE THROUGH THE USE OF INNOVATIVE FUNCTIONAL PROTEINS THAT POSITIVELY IMPACT PERFORMANCE.**

Plasma fed in early feeds has long-term performance and health benefits for birds, making it a low-investment and high-value strategy. Plasma is suitable for use in all types of systems and production environments.

Plasma can be used alone or in combination with other technologies, making it ideal for use in both antibiotic-free and conventional systems. This is because plasma’s unique mode of action is strongly associated with immune response and has been shown to be complementary to antibiotics and other feed additives.

**Recent research with leading scientists has demonstrated that feeding SDP in poultry can:**
- Improve production performance measurements
- Reduce mortality up to 50%
- Reduce the negative effects of stress and disease

**Plasma Performance**

Recent research demonstrates the use of plasma proteins in broiler diets, with or without antibiotics or other additives, has a positive impact on gain, tolerance to stress events and survivability.
Ensuring birds develop a strong immune system and gain weight early are key predictors of later performance. Spray-Dried Plasma is uniquely positioned as part of a nutritional strategy to develop the immature immune and digestive systems in young poultry. Plasma promotes overall health, tolerance to challenges and stressors, and improves overall performance. You’ll see the difference in improved feed conversion, body weight gain and survival. Adding plasma in just the first diet will pay for itself in performance.

**BROILERS:**
It seems there’s no shortage of potential problems when raising broilers – illness outbreaks, environmental challenges, vaccinations. Every stressor takes a toll – especially on young chicks. There are many additives available today that promise improvements – but ask yourself, do they have the data to back their claims? Plasma does. Ensuring a cumulative intake of 3 to 4g of plasma per chicken during the first feeding phase makes it an economically feasible solution in chickens. Plasma helps support the developing immature immune system of the chickens early in life, improving their overall feed efficiency, weight gain and reducing mortality; and increasing their tolerance to disease and stress.

**LAYERS AND BREEDERS:**
Pullets need to develop their immune, reproductive and skeletal systems achieving target weights and uniformity by the onset of lay. However, they are often exposed to demanding vaccination programs, variable environmental conditions, and other stressors and health challenges. Feeding plasma to the developing pullet during the first weeks of life helps them to face these challenges by supporting their immune system and achieving a long and productive lifecycle.

**TURKEYS:**
The turkey chick faces various challenges during the first weeks of life that prevent it from reaching full genetic potential. Feeding plasma to the young turkey in the first few weeks supports early immune and gut development, leading to better early weights and greater tolerance to challenges and stressors. Plasma is a rich source of highly digestible protein helping to reduce the levels of SBM used in the diets and the amount of undigestible protein, which are key to achieving desirable gut health in young turkeys. At high temperatures, plasma forms an irreversible thermoplastic gel, thus using it in early turkey diets helps reduce fines. All of these benefits translate into better overall lifetime productivity and health. Plasma is a safe, natural fit for early turkey diets.

*Today, APC is the world’s largest manufacturer of blood-derived functional ingredients* operating 20 manufacturing plants in nine countries and on four continents where we continue to innovate.
Spray-Dried Plasma (SDP) is a dry powder rich in functional proteins obtained from blood collected during the harvest of healthy animals destined for human consumption. The method of production involves the separation of red cells from plasma followed by the high temperatures and pressure of spray-drying, resulting in a homogeneous powder that has been used in animal nutrition as a functional ingredient since the 1980s. SDP contains a complex mixture of proteins such as albumin, globulin, transferrin, growth factors, bioactive peptides, and other nutritional components.

**HOW PLASMA IS MADE**

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**BIOSAFETY**

APC takes the risk of foreign animal diseases and the safe manufacturing of our products seriously. Manufacturing safe and effective products is our number one priority. As the global leader in spray-dried animal proteins, we make continuous investments in the latest technologies – sometimes exclusive to us – to ensure we are providing a safe product 100% of the time. We invest significant resources into conducting scientific trials that validate our manufacturing practices inactivate global diseases of concern. The manufacturing process for the production of spray-dried plasma follows the World Health Organization guidelines for the production of human transfusible blood products.

**APC follows WHO guidelines:**
- Donor Selection
- Testing of Plasma Pools
- Viral Inactivation & Removal Procedures

**World Health Organization**

Our team of scientists initiates research where we seek to understand how our functional proteins work, resulting in more than 500 published journal articles.
PLASMA FEEDING RECOMMENDATIONS

**BROILERS:**
1 to 3% in the first diet until reaching 3 to 4g of total cumulative plasma intake per chicken

**LAYERS & BREEDERS:**
2% during the first 4 to 6 weeks of life

**TURKEYS:**
2% in the first feeding phase, and 1% when facing stress during transition periods

**BOTTOM LINE - PROVEN EFFECTIVE ACROSS MULTIPLE STUDIES**

- **INCREASED TOLERANCE TO STRESS & DISEASE**
- **FEED EFFICIENCY**
  +1.5-3%
- **WEIGHT GAIN**
  +1.5-3%
- **REDUCED MORTALITY**
  up to 50%
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