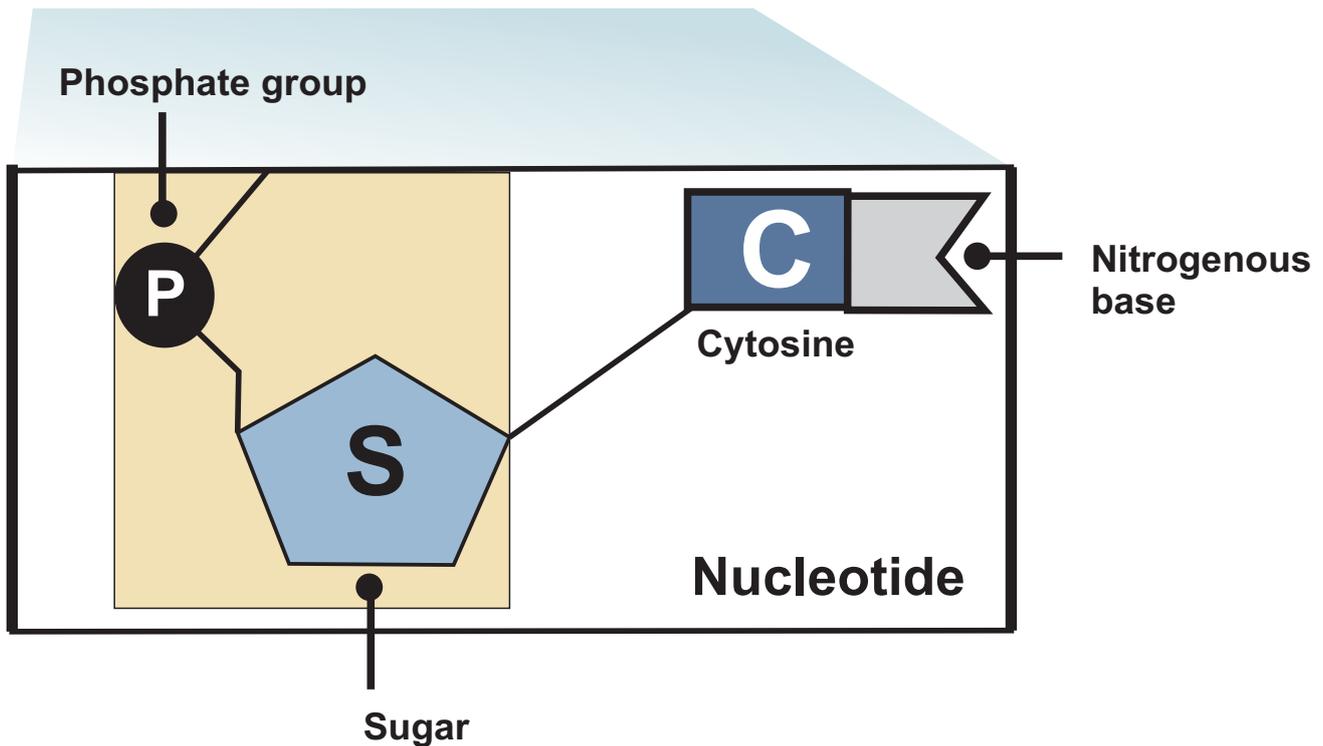


**Introduction:**

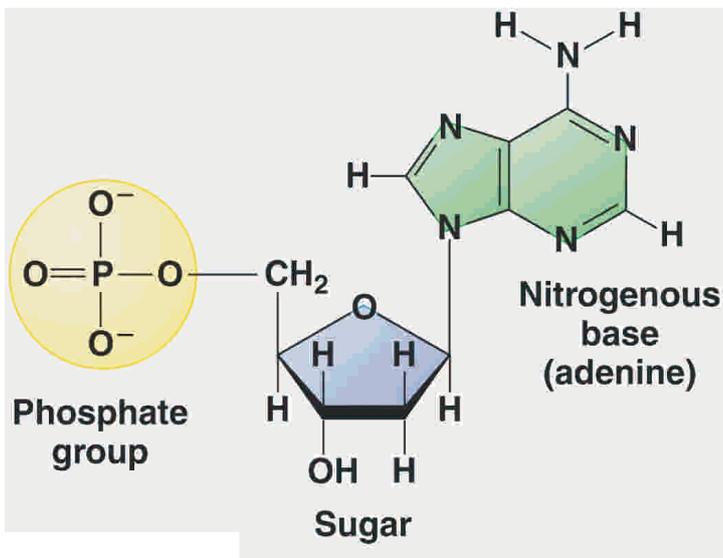
Nucleotides are the constitutive units of DNA and RNA Nucleic Acids. Nucleotides are true functional ingredients frequently used to improve the disease resistance, to decrease mortality and to promote the growth rate. Nucleotides participate to different important physiological processes in the body. As carriers, they allow the transport of ATP the main energetic molecule for the living cells. Moreover, they play a focal role in several enzymatic reactions, affecting proteins, fats and carbohydrates metabolism which together essential amino represent a key factor in the protein synthesis.

In the two families of nucleic acids, ribonucleic acid (RNA) and deoxyribonucleic acid (DNA), the sequence of nucleotides in the DNA or RNA codes for the structure of proteins synthesized in the cell. The nucleotide adenosine triphosphate (ATP) supplies the driving force of many metabolic processes.



**What is ADDNucleo Poultry ?**

ADDNucleo Poultry is a concentrate of free nucleotides specifically designed for broilers and layers obtained from dried yeast extracts. The following is the image of three parts of nucleotide.



There are three nitrogenous bases with sugar and one or more phosphates: cytosine monophosphate, adenosine diphosphate, and adenosine triphosphate. These are also known as nucleotides

#### What is it used for ?

ADDNucleo Poultry is designed exclusively for use in Broilers, Layers and Grand parents adapted to the nucleotides needs of these animals.

#### Absorption and utilization in poultry :

The majority of nucleotides are broken down to nucleosides before being absorbed. This process takes place in small intestine where they are enzymatically hydrolyzed. Since nucleotides have a high negatively charged phosphate group that hinders absorption, the nucleoside form is the major vehicle for entry of purines and pyrimidines into the epithelial cells. Moreover, under physiological conditions, nucleotides have a limited capacity to pass through the cell membrane. Once the partial metabolic products of nucleosides are released into systemic circulation, they are re-utilized for nucleotide production. Nevertheless, the reassembly of nucleotides in the intestinal tract requires less time and energy compared with de novo synthesis.

#### Whether they can be stored in their body ?

Nucleotide metabolism is characterized by constant synthesis and catabolism. Various studies have indicated that about 2 to 5% of dietary nucleotides are retained in the small intestine, liver and skeletal muscle tissue pools. Hence, the nucleotide supplementation has to be throughout the production cycle to protect against any negative impact.

#### Main effects on Poultry Birds :

- Reduces stress.
- Enhances immunity.
- Improves reproductive output.
- Increases growth and conversion index.
- Reduces mortality.
- Enhances profit.
- Increases breast yield.
- Increases egg production ( size & number ).
- Improves intestinal health.
- Increases weight gain.

#### Can it replace the AGP's in feed ?

The basic role of AGP's is to establish an effective defence against pathogens. They are administered in low doses to the target species that do not have bacterial infection but are at risk of developing it. Such type of doses are given for a specific duration or until the presence of risk. The supplementation of nucleotides also generates a similar immune response by accelerating the activation and production of specialized cells. This mode of action offers greater resistance and therefore better survival rates in the face of diseases. Moreover, a strong immune response generated by nucleotides responds equally to stress factors, such as injuries, environmental changes, physical exertion, growth etc. which the AGP's are not capable of. Though it is quite difficult to predict the future development of the feed industry, the nucleotide supplementation will certainly become more important to ensure the demand of consumers for high quality, safe and clean products.

#### Appearance :

Product is in white to offwhite powder with characteristic taste and aroma.

#### Dosage :

The recommended dose is 250-500g per ton in Broilers feed( prestarter and laying Hens in the rearing period )

#### Shelf Life :

Two years from the date of manufacture.

#### Packaging :

ADDNucleo Poultry is available in 25 kg Paper Bag.

The information and data contained herein has been compiled based on information we believe reliable. Users should thoroughly test all applications and independently conclude satisfactory performance before commercializations, as these recommendations are non-binding. User's assume all liabilities for use of the Products. We are not liable for any advice which we may have failed to give.

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