



NIGROX

Support Cardiovascular Health & Function

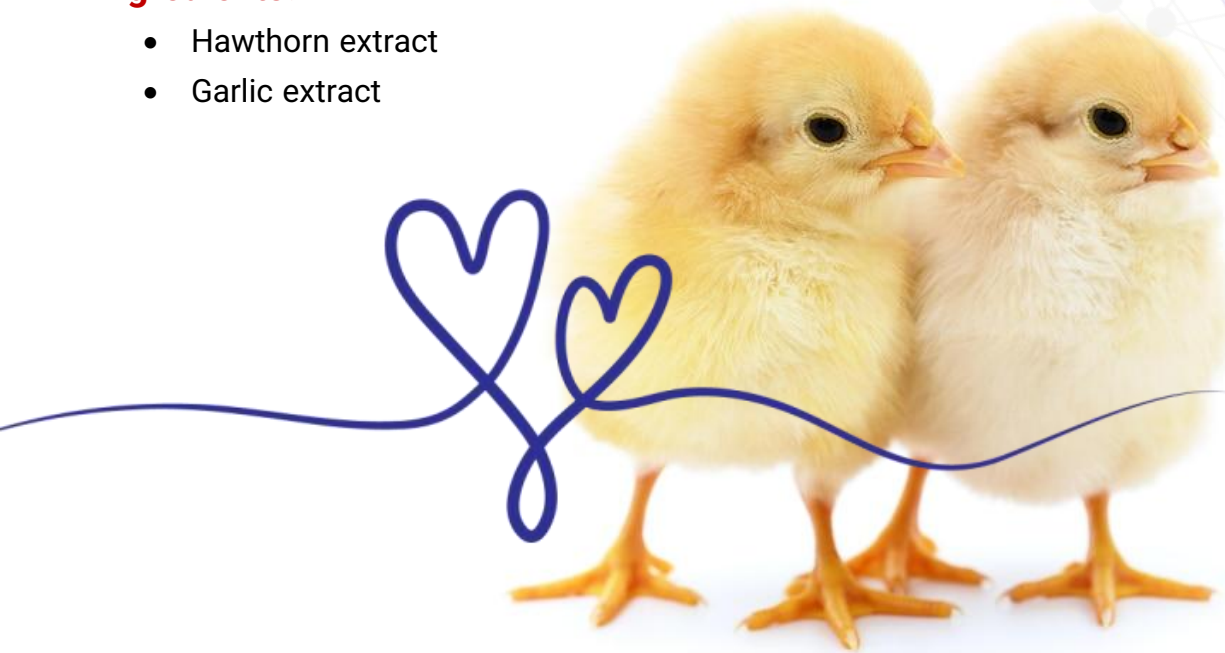
100% Herbal

For All Type of Poultry

Oral Solution

Ingredients:

- Hawthorn extract
- Garlic extract



Cardiovascular diseases in poultry, particularly in fast-growing broiler chickens, are among the major challenges in the poultry industry. Acute and chronic heart failure, ascites, and sudden death syndrome (SDS) are common consequences of these disorders, contributing significantly to flock mortality and reduced performance. This condition is mainly the result of high metabolic demands and the rapid growth rate of modern genetically improved breeds.

NIGROX® is a specialized formulation based on active compounds from herbal extracts, designed to help maintain normal cardiovascular function, improve cardiac disorders and heart failure in all types of poultry, and play a key role in reducing mortality, improving metabolic status, and enhancing flock productivity.



Mode of action:

The active ingredients in **NIGROX[®]**, including flavonoids (such as hyperoside, quercetin, and vitexin) and proanthocyanidins, enhance intracellular calcium levels in cardiac muscle cells through:

- Inhibition of cAMP phosphodiesterase and increasing cAMP levels in cardiac muscle cells
- Inhibition of Na⁺/K⁺-ATPase enzyme activity

These mechanisms lead to an increase in cardiac contractility.

The compounds in **NIGROX[®]** also regulate blood pressure and improve coronary blood flow through inhibition of phosphodiesterase enzymes and angiotensin-converting enzymes (ACE) by hawthorn extract.

The high antioxidant potential of the flavonoids in **NIGROX[®]** prevents the development and progression of cardiovascular diseases by neutralizing free radicals and protecting cardiac tissue from oxidative damage and apoptosis. **NIGROX[®]** antioxidant activity involves increasing nitric oxide (NO) concentration, reducing hydrogen peroxide (H₂O₂) and malondialdehyde (MDA) levels, enhancing the activity of antioxidant enzymes such as nitric oxide synthase and catalase (CAT), and inhibiting the formation of reactive oxygen species (ROS).

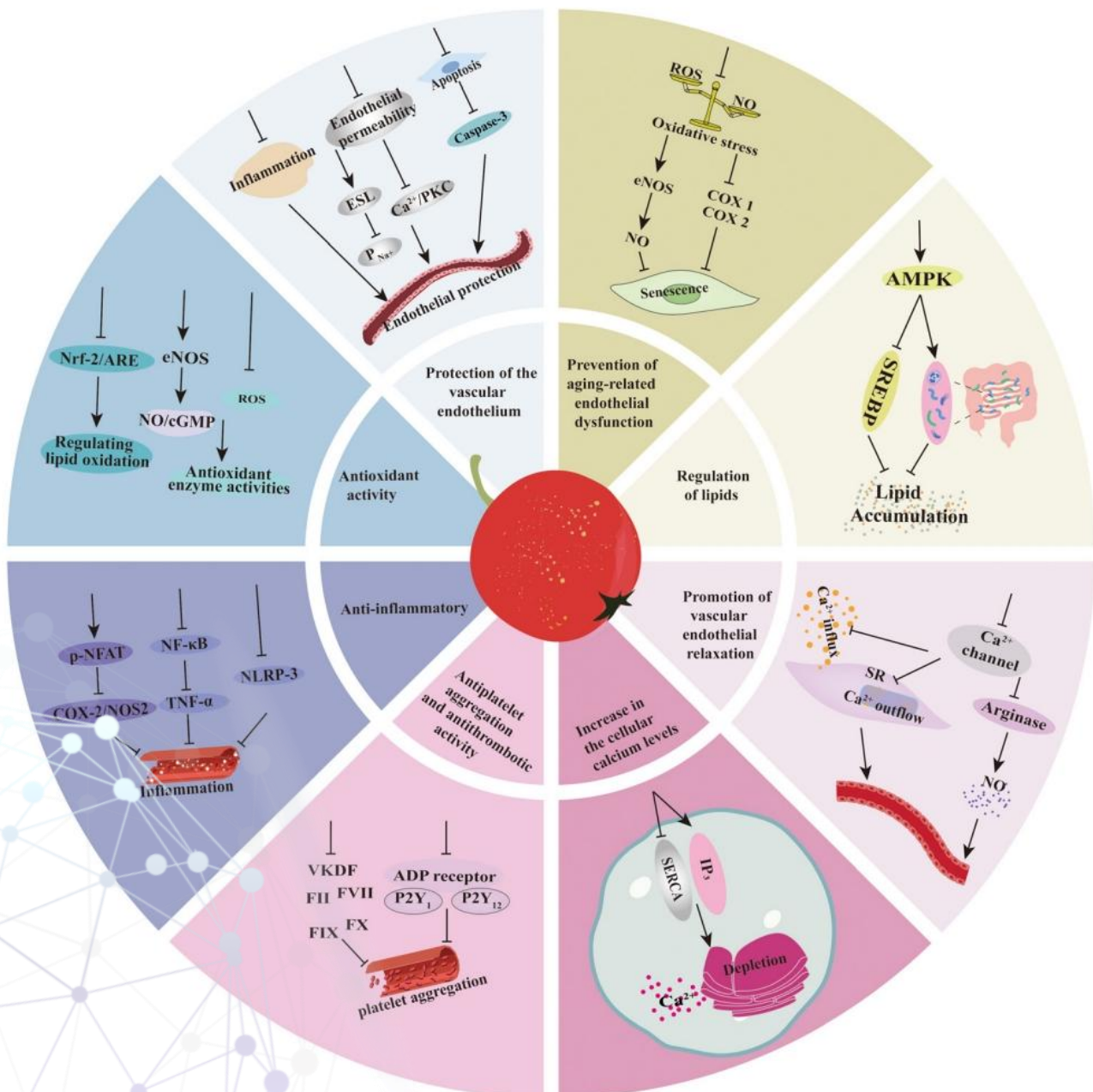
NIGROX[®] also inhibits cardiac remodeling—structural changes such as alterations in wall thickness and chamber size—that can impair normal heart function.

The bioactive sulfur compounds in **NIGROX[®]**, including allicin and ajoene, have antihypertensive, antiplatelet aggregation, antithrombotic, and lipid-lowering properties. These compounds prevent clot formation by promoting vasodilation and enhancing fibrinolytic activity, directly contributing to the reduction of atherosclerosis and myocardial infarction risk. They also help prevent atherosclerosis, obesity, and metabolic disorders associated with cardiovascular diseases by inhibiting lipid synthesis and lowering blood triglyceride and cholesterol levels.

With its anti-inflammatory effects—achieved by inhibiting COX-2 enzyme, the inflammatory factor NF-κB, cytokines such as TNF-α, and the NLRP3 inflammasome complex—**NIGROX[®]** can reduce cardiac inflammation, manage chronic heart failure, mitigate vascular damage, and prevent thrombosis caused by chronic inflammation.

Benefits of Use:

- Increases cardiac output
- Improves heart failure (HF)
- Prevents pulmonary hypertension syndrome (PHS) and sudden death syndrome (SDS) in poultry flocks
- Improves arrhythmia
- Reduces enteritis caused by heart failure
- Eliminates edema and ascites
- Relieves hypoxia (low blood oxygen)
- Treats cardiac neuromuscular disorders



Dosage and Administration:

Prevention of Sudden Death Syndrome (SDS) and Pulmonary Hypertension (PHS): 250 to 500 ml per 1000 liters of drinking water, administered 1 to 2 days per week.

Supportive Treatment of Ascites: 250 to 500 ml per 1000 liters of drinking water, administered for 3 to 5 consecutive days.

During Heat Stress (as an Antioxidant): 250 to 500 ml per 1000 liters of drinking water, administered for 3 days.



Contraindications:

None

Drug Interactions:

No known interactions.

Fully compatible with all types of feed components including antibiotics, enzymes, probiotics, and prebiotics.

Side Effects:

Completely natural formulation.

No side effects or risk of resistance development.

Withdrawal Period:

None

Storage Conditions:

Store in a dry place, below 25°C and away from direct sunlight.

Packaging:

250 ml bottle

Shelf Life:

2 years from production date.



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