

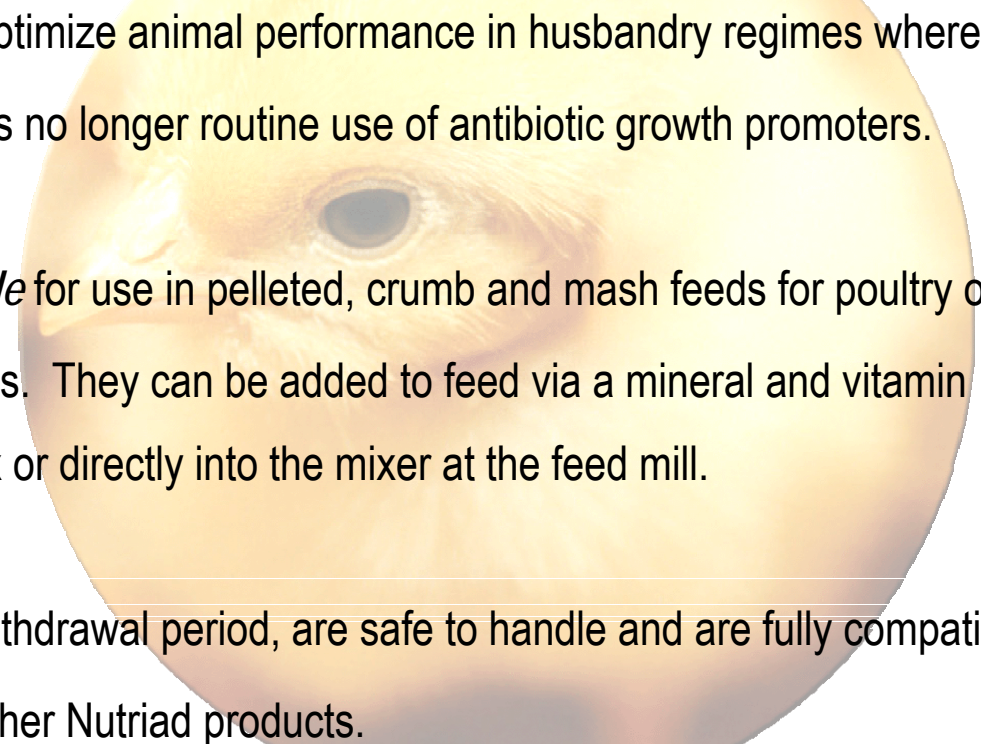
# APEX® POULTRY

Natural botanical products tailored for use in: Game Bird Feeds,  
Pasture and/or Free Range Chickens, Backyard and Commercial Poultry

## Apex® Poultry

## Apex® SP2

## Apex® SP3

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- *will help* optimize animal performance in husbandry regimes where there is no longer routine use of antibiotic growth promoters.
  - *are suitable* for use in pelleted, crumb and mash feeds for poultry of all ages. They can be added to feed via a mineral and vitamin premix or directly into the mixer at the feed mill.
  - *have no* withdrawal period, are safe to handle and are fully compatible with other Nutriad products.



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Apex® Poultry can be used as part of a rotational shuttle program along with our Apex SP2 and Apex SP3 products.

### Apex® gave the best Feed Conversion Rate overall

In a commercial replicated pen trial, Apex® gave the best Feed Conversion Rate (FCR) overall compared to the broilers receiving diets containing Antibiotics or Essential Oils.

	Apex® 150g/t	Control	Antibiotic	Essential Oils
Feed Intake (kg)	1.844	1.806	1.834	1.828
Live Weight (kg)	1.388	1.336	1.373	1.365
Daily Weight Gain	60.2	57.5	59.5	59.1
FCR (to 2 kg)	1.531	1.572	1.543	1.550



### Apex® reduces the need for drinking water medication

	Apex® 500 g/t	Control
Broiler Live Weight	1.991	2.023
% Medicated	0	67
No. Broilers	40,104	155,300

In a trial conducted under commercial conditions Apex® reduced the need for drinking water medication in antibiotic free natural broiler production.

### Apex® improves the economics of growing broiler chickens

- Apex® improved the feed conversion ratio of 0-35 day-old broilers by 4% or 6 points relative to the control diet containing sub-therapeutic levels of AGP (Antibiotic Growth Promoter).
- Apex® maintained weight gain of the broilers to the same level as achieved with the AGP.
- Apex® reduced cost of chicken produced by \$0.01 per kg of birds sold; equivalent to a savings of \$0.02 per bird.

0-35 Days Old	Control AGP	Apex® 150g/t
Final Weight (kg/bird)	1.757	1.759
FCR	1.777	1.718
Mortality (%)	2.75	2.62
Feed Cost (\$/t)	\$240	\$240
Profit/kg Broiler	\$0.40	\$0.42
Profit/Bird	\$0.71	\$0.74

### Apex® improves broiler performance and economics for the Natural Bird market

In a commercial trial run under natural production in the US, 0-46 day-old broilers grown under a drug free 'natural bird' program were fed Apex® at 300g/t in starter feeds and 250g/t in growers and finisher diets. The birds had improved FCR relative to birds fed unsupplemented control diets.

Apex® improved the numbers of birds live at slaughter compared to both the negative and positive (medicated) treated flocks.



Medicated flocks received penicillin via drinking water as required during periods of poor litter quality.








Corn-soy based diets were formulated to USA recommendations and fed as pellets

No diets contained in-feed Antibiotic Growth Promoters as the production system employed by these growers does not allow this practice: the birds are sold as 'drug free' in a premium quality market.

0-46 day performance	Control	Medicated Penicillin	Apex®
Liveweight (kg)	2.31	2.29	2.20
Feed Intake (kg)	4.77	4.45	4.47
FCR	2.09	1.96	2.06
% Net live birds	91.3	94.5	96.0
<b>Economics</b>			
No. birds/1000 housed	913	945	960
Extra birds per 1000 housed		32	47
Extra weight gain per 1000 birds (kg)		73.3	103.4

### The Performance Benefits of Botanicals

The natural ingredients below can be found in all three Apex® Poultry products in unique combinations.

<b>Aniseed</b>		<ul style="list-style-type: none"> <li>• Digestive enhancer</li> <li>• Antimicrobial properties (anethol)</li> </ul>
<b>Cassia</b>		<ul style="list-style-type: none"> <li>• Antiseptic, anti-fungal and anti-viral</li> <li>• Antibacterial – especially vs. E. Coli</li> <li>• Pancreatic activity – immune system</li> <li>• Good flavor / masking agent</li> </ul>
<b>Cayenne Pepper</b>		<ul style="list-style-type: none"> <li>• Appetite stimulant</li> <li>• Antiseptic</li> <li>• Circulation</li> <li>• Digestive enhancement (gastric acid, saliva flow)</li> </ul>
<b>Garlic</b>		<ul style="list-style-type: none"> <li>• Very powerful antimicrobial, antifungal</li> <li>• Cholesterol reduction</li> <li>• Circulation benefits</li> <li>• Excellent flavor characteristics</li> </ul>
<b>Ginger</b>		<ul style="list-style-type: none"> <li>• Reduces stress</li> <li>• Positive effect on gastric activity</li> <li>• Appetite stimulant</li> <li>• Antioxidant</li> </ul>
<b>Horseradish</b>		<ul style="list-style-type: none"> <li>• Powerful digestive stimulant</li> <li>• Antiseptic</li> <li>• Flavoring properties</li> </ul>
<b>Juniper</b>		<ul style="list-style-type: none"> <li>• Gastro-intestinal antiseptic</li> <li>• Aids kidney function</li> <li>• Attractive flavor for birds</li> </ul>

Inclusion Level for Apex Poultry, SP2 & SP3: 100-300gms/ton