

TRIAL REPORT: 2016

To Assess the Efficacy of 'RENOFLUSH' on GOUT
In Broiler Chicken

NAME OF SPONSOR

M/S Noble VetScience LLP
Koregaon Park, Pune

NAME OF PERFORMING INSTITUTE

R & D Farm Baramati Agro

YEAR 2016

Name of the Research project	To Assess the Efficacy of 'RENOFLUSH' on gout in Broiler Chicken
Conducted at	R & D Farm Baramati Agro
Year	2017
Name of Sponsor	Noble VetScience LLP Koregaon Park, Pune
Name of Research Worker	Dr. Saraf, Dr. Shivaji Bidgar & Integration Team

Summary

Gout is common problem in commercial Broilers. Gout may occur either due to chicks supplied from Virulent Infectious Bronchitis affected breeder flocks or due to poor management at farm or hatchery. Gout which is vertically transmitted Infectious Bronchitis shows Gout lesion from day 1 to day 10 with heavy mortality ranging from 10-20%. It may sometimes go up to 35% if proper supportive treatment not given immediately:

Common practice to treat such type of Gout is by giving either –

1. Jaggery water along with vitamins
2. Use of diuretics Potassium Chloride - 1/2 to 1 gm / Lit.
3. Provide Crushed Maize (25-50% of Feed)
4. Use of Electrolytes - 72 mEq
5. Citrate or Bicarbonate form

However, despite this treatment, Gout mortality does not fall below 10%.

Noble VetScience has formulated a product called Renoflush based on natural plant extracts by using alkaloids to control Gout -

Contents of the product include Equisetum hymale, Hydrangea, Tribulus terrestris, Apocynum cannabinum.

- Extracts of Equisetum hymale help in liquidation of uric acid crystals and urates
- Extracts of Hydrangea accelerate the purifying activity of individual nephrons
- Extracts of Tribulus terrestris and Apocynum cannabinum improve kidney filtration activity

The integrators feedback about this product is positive, so to evaluate the performance of Renoflush compared with traditional treatment. This trial was conducted on 40,000 commercial broilers.

Material & Method

In the contract farming unit, 4 commercial Broiler farms each capacity 10,000 identified with same area, same climate and common- feed, chicks and management source

As the chicks supplied from Virulent Infectious Bronchitis breeder flock, it was aware there will be Gout symptoms in between day 1 to 10. All the groups treated for first 10 days of life with

Table 1

Group 1	Jaggery water along with vitamins
Group 2	Diuretics Potassium Chloride - 1/2 to 1 gm / L
Group 3	Crushed Maize (25-50 % of Feed) & Electrolytes - 72 mEq of Na
Group 4	Reno flush 2ml/100 birds

All the flocks were given Prestarter, starter and finisher feed with enough water, standard brooding temperature and other management practices.

Mortality for all the groups was noted on a daily basis and Post mortem analysis was done. Also, weekly feed consumption, FCR also noted

Results & Discussion

Weekly performance pertaining to Mortality, Average Body Weight and FCR for all groups is given below

Table 2: Weekly Mortality in percentage

Weeks	Group 1	Group 2	Group 3	Group 4
1	3.1	2.8	3.2	1.8
2	5.6	4.1	4.8	1.2
3	2.8	1.5	3.7	0.8
4	1.5	1.0	1.6	1.1
5	1.5	0.5	1.2	0.5
6	2	0.7	1.5	0.7
Cumulative Mortality	16.5	10.6	16	6.1

Table 3: Cumulative Body weights in grams.

Weeks	Group 1	Group 2	Group 3	Group 4
1	154	187	156	190
2	380	480	395	500
3	818	964	822	985
4	1275	1480	1275	1590
5	1785	1840	1760	2250
6	2102	2300	2140	2712

Table 4: Cumulative Feed Conversion Ratio

Weeks	Group 1	Group 2	Group 3	Group 4
1	1.13	0.90	1.12	0.85
2	1.15	1.27	1.13	1.09
3	1.31	1.30	1.3	1.29
4	1.42	1.35	1.43	1.34
5	1.54	1.48	1.56	1.44
6	1.77	1.70	1.70	1.63

Discussion

Group 1- Jaggery water along with vitamins

First two weeks mortality was almost 10% and on PM the dead chicks showing Visceral Gout, deposition of crystals on visceral organs. Third weeks onwards mortality started to decline. Body weight gain in this group was slow in first two weeks similarly FCR was on higher side, this is mainly due to morbidity.

All dull and morbid chicks consumed less feed and water

Group 2- Diuretics Potassium chloride

First two weeks mortality was 6.9% which was less than Group 1. Post mortem of the dead chicks indicated Visceral Gout. Till end of six weeks mortality was 10.6 %. Body weight gain in this group was slow in first two weeks. Similarly, FCR was on higher side.

Group 3- Crushed Maize (25-50 % of Feed) & Electrolytes - 72 mEq of Na

In the first two weeks mortality was 8%. When Post mortem of the dead chicks was conducted, Visceral Gout was observed. Third week onwards mortality started declining but the total mortality was 16% which is similar like Group 1. Body weight gain and FCR in this group was similar like Group 1

Group 4 - Reno flush 2 ml/100 birds for first 10 days

First two weeks mortality was 3% slightly higher than the standards. But overall cumulative mortality till week six was 6%. Post Mortem of the dead chicks showed Visceral Gout but severity was less compared to other groups.

Body weight gain in first two weeks better than other groups, FCR was also good

Conclusion

From this scientific field trial it is concluded that, the traditional treatments to control Gout morbidity and mortality work in certain limits. Use of diuretics reduces mortality but it does not improves weight gain and FCR

However, use of phytogetic extract Renoflush controls morbidity and mortality of Gout. It controls mortality and same time improves weight gain and FCR compare to traditional Gout treatments.

Reference

1. Efficacy of Tribulus terrestris on Experimentally Induced Gout in Broilers

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