Banminth® Deworming Programs- Flexible, Effective, Economical

Use Program	Indication	Application	Timing	Objective	Benefits
96 g/ton Fed continuously	Prevent ascarid larval migration and the establishment of large roundworm and nodular worm infections	Protect new replacement females and grower pigs placed in ascarid contaminated finishing barns: i.e., hoop-barns, concrete floors	28 days continuous feeding upon arrival or beginning at placement	Prevent ascarid larval migration while allowing gut level immunity to develop	Reduce incidence of lower feed conversion, liver damage, pneumonia and death loss caused by ascarid larval migration and secondary respiratory pathogens
96 g/ton Feed for 3 days minimum in complete feed	Removal and control of large roundworm infections	Purge deworm entire breeding herd Purge deworm grow-finish animals	Feed medicated batch until gone (minimum 3 days) Breeding herd: 2-4 dewormings per year Finishers:1-2 deworming at 42 day intervals	Remove adult egg-laying roundworms to reduce ascarid egg contamination levels in gestation and finishing barns	Reduce facility contamination will decrease pig exposure to ascarid eggs thereby reducing risk and level of infection
800 g/ton Complete feed fed as a one day, single dose	Removal and control of large roundworm and nodular worm infections	Purge deworm breeding animals	Feed medicated batch for one day Administer 2-4 times per year	Remove adult egg-laying roundworms to reduce ascarid egg contamination levels in gestation	Reduced facility contamination will decrease pig exposure to ascarid eggs thereby reducing risk and level of infection

Withdraw 24 hours prior to slaughter.
Do not mix in feeds containing bentonite.

HEALTHY ANIMALS. HEALTHY FOOD. HEALTHY WORLD®

Phibro ANIMAL HEALTH CORPORATION™

Important Facts about Large Roundworm (Ascarid) Infections in Swine

Prevalence and damage

- Surveys indicate swine ascarids and to a lesser extent, nodular worms are usually the two types of worms found in pigs raised in confinement facilites[1]
- Low-level ascarid infections can depress feed intake and the rate and efficiency of weight gain[2]
- Ascarid infections skew the immune response that protects against extracellular parasites at the expense of reduced immune response to other disease pathogens[3]

Life cycle

- Adult female ascarids can shed over one million eggs per day over a period of 6 to 12 months.
- Ascarid eggs passed in feces can become infective in 21-30 days and remain infective for years in the environment
- Migrating larvae reach the lung 7-10 days after infection (watch for signs of respiratory distress)
- Migrating larvae end up back in the intestine and become egg-laying adults roughly 42 days after initial infection

Immunity

- Immunity to ascarids develops at the gut level and can limit migration of larvae obtained from subsequent exposure to ascarid eggs[4]
- Lack of prior exposure to ascarids (immune naivety) increases susceptibility to damaging effects of larval migration through the liver and lungs[5]

Control strategies

- Herd control should focus on reducing the number of egg-laying adult worms by purge deworming at several intervals throughout the year.
- Purge deworm the breeding herd to reduce the risk of sows carrying ascarid eggs into the farrowing crates on their bodies
- Purge deworm grow-finish pigs to reduce the level of ascarid egg contamination in the finishing barns
- Protect parasite naïve animals; i.e., replacement gilts and feeder pigs, which are placed into suspect ascarid contaminated facilities. Allow immunity to develop while protected with *Banminth* 96 g/ton continuous programs[5]

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[1]Moncol,D.J. 1993. Management of internal parasitism in confined swine. Comp. Cont. Ed. 15:753-767.
[2]Hale O.M. et al. 1985. Influence of an experimental infection of Ascaris suum on performance of pigs. J. Animal. Sci. 60:220-225.
[3] Urban,J.F. et al. 1988. Mechanisms of intestinal immunity to nematode parasites and the consequences to invasion by opportunistic bacteria. Old Herborn Univ. Sem. Monograph # 11:59-69.
[4]Urban, J.F. et al. 1988. Ascaris suum: development of intestinal immunity to infective second-stage larvae in swine. Experimental Parasitology. 66:66-77
[5]Stankiewicz,M. 1990. Evaluation of Pyrantel-tartate abbreviated Ascaris suum infections for the development of resistance in young pigs against migrating larvae. Int. Journal for Parasitology. Vol 20; 1:77-81.

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