Tylvax®

One step ahead

Tilvalosina
(as tartrate)

10 TIMES MORE POWERFUL*

* The minimum inhibitory concentration (MIC) of tylvalosin is 10 times lower than tylosin against Mycoplasma hyopneumoniae.
In reference values tylvalosin MIC <0.0125 vs. Tylosin MIC = 0.1.

Avivet®

Division of Poultry and Swine
Agrovet Market Animal Health

Avivet®

Tylvax®

One step ahead

We are introducing an innovative portfolio of products based on Acetylisovaleryltylosin macrolide antibiotic, better known as tylvalosin (on tartrate form). Tylvalosin has a rapid absorption, excellent bioavailability, achieving very high concentrations in blood and target tissues.
It has a powerful mycoplasmicide effect ten times higher than tylosin.

Tylvax® is recommended for the prevention and effective treatment of the disease caused by Mycoplasma and enteric diseases in poultry - chickens and turkeys - and pigs.

Tylvax® Px

Advanced-generation macrolide antibiotic

Tylvalosin (as tartrate) 5 %

Tylvax® C Px

Advanced-generation and broad-spectrum tetracycline - macrolide synergyc association

Tylvalosin (as tartrate) 2 %
Chlortetracycline (as hydrochloride) 20 %

Tylvax® WS

Advanced-generation macrolide antibiotic

Tylvalosin (as tartrate) 25 %

Tylvax®

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Powerful mycoplasmicide effect /

Its powerful effect achieves bactericidal action at a minimum concentration and in a shorter period of time. **Tylvax®** has a powerful mycoplasmicide effect, which is ten times higher than tylosin.

Fast and effective response /

Tylvalosin has shown to have a very rapid absorption. In just 30 to 60 minutes (in chickens and pigs respectively) it reaches therapeutic plasmatic levels. In comparison, tylosin requires twice as long to achieve lower levels.

Tylvax® is highly effective in the control and treatment of major infectious diseases in pigs.

/ A SUPERIOR MOLECULE

Selective action on target tissues /

Tylvax® is highly effective against respiratory and enteric pathogens, accumulating in the tissues in a selective way, reaching pulmonary and mucosal lining concentrations higher than plasmatic concentration. By also concentrating in bile, it guarantees its presence in the digestive tract against enteric pathogens.

Its action is effective in more than one location /

Tylvalosin present in **Tylvax®** binds to bacterial ribosome, preventing the development of protein synthesis, thereby causing inhibition of bacterial growth or death. In addition, the main metabolite binds to another receptor of the bacterial ribosome, ensuring powerful action.

It improves conversion rates /

Ideal promoter of growth, it improves conversion rates and production efficiency.

Antibiotic effect at intra and extra cellular levels /

Tylvalosin rapidly reaches high intracellular concentrations. Similarly, if the concentration in the extracellular environment is lower than in the intracellular spaces, drug is released from inside of the cell, enhancing the antibacterial action both intracellular and extracellularly.

Improves non-specific immunity /

Tylvax® can specifically increase the activity of macrophages, helping the non-specific immune system to remove pathogen agents. Tylvalosin makes macrophages more active and stimulates the differentiation of monocytes to macrophages.

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Mycoplasmicide action /

The action of tylvalosin in **Tylvax® is ten times stronger than tylosin** since its minimum inhibitory concentration (MIC) is ten times lower against *Mycoplasma hyopneumoniae*.

Sensitivity test of *Mycoplasma hyopneumoniae*[1]

Antibiotic	Yamamato MIC 90 µg/ml	Inamoto MIC 90 µg/ml
Tylvalosin	<0.013	<0.0125
Tylosin	0.1	0.1

MIC: minimum inhibitory concentration

Tylvax® provides reliable results in the prevention and treatment of mycoplasmosis in poultry.

1 External bibliography.

/ POWER AND ACTION

Wide range of action /

Tylvax® is indicated for the control of respiratory and enteric diseases in poultry and pigs. Tylvalosin in **Tylvax®** has antibacterial activity against gram positive and some gram negative microorganisms, having also excellent antimycoplasmal activity.

Poultry - Chickens and turkeys

- Mycoplasmosis
- Necrotic enteritis
- ORT

Pigs

- Mycoplasmal pneumonia (Enzootic)
- EPP (Ileitis)
- Swine dysentery
- Swine colitis

Tylvax® C Px is a proposal of unique formulation based on the synergic combination of chlortetracycline and tylvalosin. Chlortetracycline with its bacteriostatic action increases the antibiotic effect and enhances the action of tylvalosin.
Tylvax® C Px is indicated for treatment and prevention of:

Poultry - Chickens and turkeys

- Mycoplasmosis
- Necrotic enteritis, bacterial enteritis
- ORT
- Colisepticemia
- Infectious coryza
- Fowl cholera
- Pneumonias
- Omphalitis
- Coccidiosis (*Eimeria* spp.)
- Salmonellosis
- Infectious synovitis
- Secondary bacterial infections

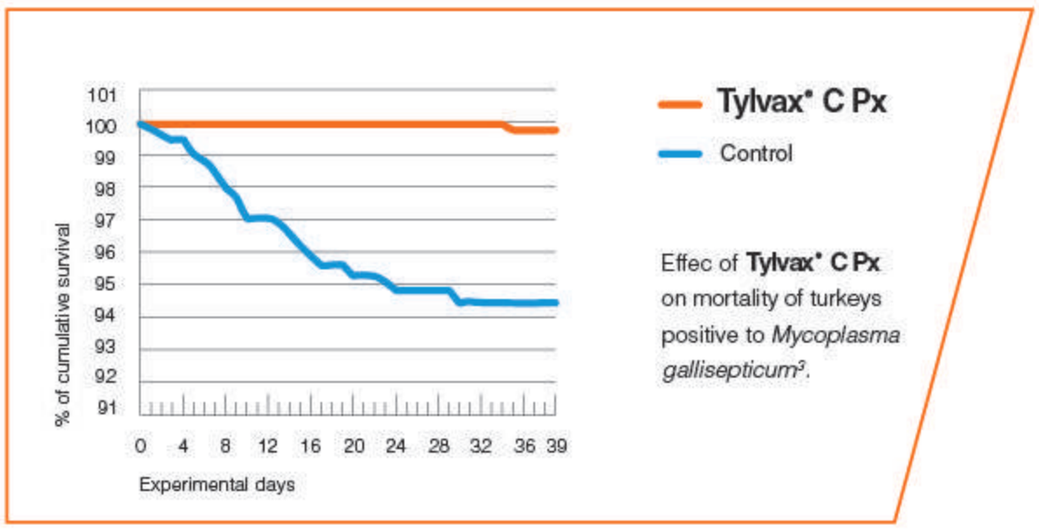
Pigs

- Mycoplasmosis
- PPE (Ileitis)
- Swine dysentery
- Atrophic rhinitis
- Swine colitis

Tylvax® used as growth promoter
can improve productive parameters.

/ EFFECTIVENESS AND EFFICIENCY

Excellent therapeutic / Studies to evaluate the therapeutic effectiveness of **Tylvax® C Px** have demonstrated:



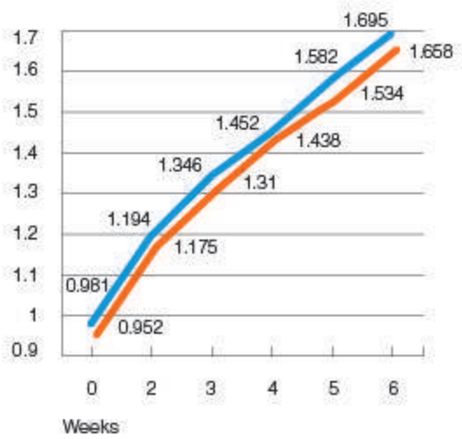
Effec of **Tylvax® C Px** on mortality of turkeys positive to *Mycoplasma gallisepticum*[3].

- A protection rate of 100% against *Mycoplasma gallisepticum* in chickens[2] and 99% in turkeys[3].
- An improvement in the survival rate of infected birds by *Mycoplasma gallisepticum* (with respect to the control groups): 100% in chickens[2], 99.20% in chickens and 99.8% in turkeys[3].
- Prevents the emergence of sinusitis and clinical signs caused by *Mycoplasma gallisepticum* in turkeys for a period of 30 days post-treatment, with a difference of 16% over the control group.[3]

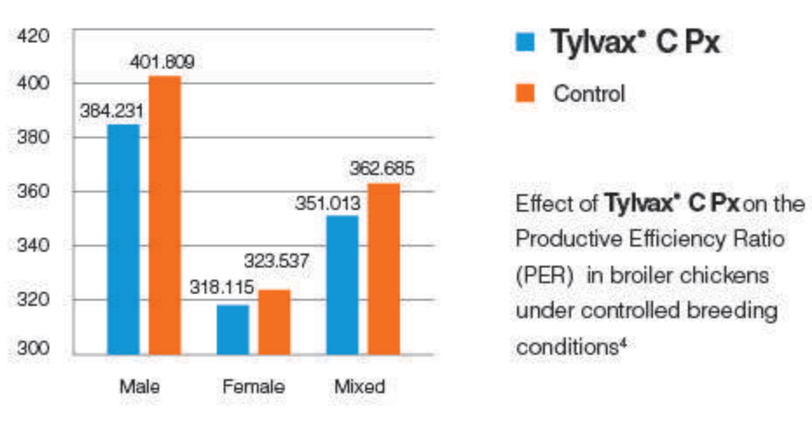
Productive efficiency /

Tylvalosin present in **Tylvax®**, alone or associated, is capable of optimizing production parameters.
Studies conducted indicate that when used as growth promoter:

- It improves conversion rates and production efficiency versus the control groups, as much as tylvalosin alone or associated to chlortetracycline.[4]



Effect of **Tylvax® C Px** on the evolution of Feed Conversion Ratio (FCR) in broiler chickens under controlled breeding conditions.[4]



Effect of **Tylvax® C Px** on the Productive Efficiency Ratio (PER) in broiler chickens under controlled breeding conditions[4]

2 Therapeutic test of acetyl - isovaleryl - tylosin soluble powder to artificial air sacculitis chicken infectious. 2012.
3 Evaluation of the effectiveness of **Tylvax® Px** against field strains of *Mycoplasma gallisepticum* in turkeys. Angelats, Roxana. AMAH. Lima 2014
4 Effect of tylvalosin (**Tylvax® Px**) and tylvalosin + chlortetracycline (**Tylvax® C Px**) on production parameters of broiler chickens. Figueroa, Gastón, FMV UNMSM. Lima 2014.

Tylvax® Px

➤ Premix

Advanced-Generation Macrolide Antibiotic for Administration in Feed.

Composition / Each 100 g contains:

Tylvalosin (Acetyl-Isovaleryl) as tartrate	5 g
Excipients q.s. ad	100 g

Indications /

Treatment and prevention of respiratory, enteric and other diseases, mainly caused by microorganisms sensitive to tylvalosin.

Poultry / Chickens and turkeys /

- Micoplasmosis: *Mycoplasma gallisepticum*, *Mycoplasma synoviae* and *Mycoplasma meleagridis*. Enfermedad Chronic respiratory disease (CRD) caused by *M. gallisepticum*.
- Necrotic enteritis associated to Clostridium perfringens, bacterial enteritis.
- ORT (*Ornithobacterium rhinotracheale*).

Pigs /

- Micoplasmosis, Mycoplasmal pneumonia (enzootic) caused by *M. hyopneumoniae*.
- Porcine Proliferative Enteropathy (PPE), swine ileitis caused by *Lawsonia intracellularis*.
- Swine dysentery caused by *Brachyspira hyodysenteriae*.
- Swine colitis caused by *Brachyspira pilosicoli*.

Withdrawal period /

- Poultry and swine: 2 days.
- Laying hens: 0 days

10 TIMES MORE POWERFUL*

Dosage and administration /

Tylvax® Px has to be administered orally mixed in feed at the following concentrations:

Poultry - Chickens, turkeys and replacement pullets				
	Pathologles	Quantity of active principle per ton of feed	Inclusion rate of **Tylvax® Px** in feed	Duration of treatment
Preventive	Infections by mycoplasma	20-50* g (20-50* ppm)	400-1000 g/Ton	7 first days
	Other infeccions by susceptible germs	50 g (50 ppm)	1 kg/Ton	7 days
Terapeutic	Infections by mycoplasma	50-100 g (50-100 ppm)	1-2 kg/Ton	7-10 days In periods of stress: 5 - 7 additional days
	Other infections caused by susceptible germs			

Swine					
	Pathologles	Dosage mg/kg/animal	Quantily of active principle per ton of feed	Inclusion rate of **Tylvax® Px** in feed	Duration of treatment
Preventive	Swine enzootic pneumonia	0.85 mg/kg/day	20 g (20 ppm)	400 g/Ton	21 days or up to the end of risk period
	PPE (ileitis)	0.85-2.125 mg/kg/day	20-50*g (20-50*ppm)	400-1000 g/Ton	
	Swine dysentery	2.125 mg/kg/day	50 g (50 ppm)	1 kg/Ton	
	Other infections caused by susceptible germs	0.85-2.125 mg/kg/day	20-50**g (20-50** ppm)	400-1000 g/Ton	
Therapeutic	Swine enzootic pneumonia	2.125 mg/kg/day	50 g (50 ppm)	1 kg/Ton	7 days
	PPE (ileitis)	2.125-4.25 mg/kg/day	50-100 g (50-100 ppm)	1-2 kg/Ton	10 - 14 days
	Swine Dysentery				
	Other infections caused by susceptible germs				

* Piglets: 20 ppm up to 25 kg. Sows: 50 ppm during 10 days before delivery. Sucking pigs over 25 kg: 50 ppm the first week and then 20 ppm during 8 weeks.
** 50 ppm when the risk is high or under conditions of stress.

! For more information on dosage, consult the product insert.

One step ahead

Tylvax® C Px

UNIQUE PRODUCT 1

▸ Premix

Synergic Association Tetracycline + Advanced-Generation and Broad Spectrum Macrolide for Medication in Feed.

Composition / Each 100 g contain:

Tylvalosin (Acetyl-Isovaleryl) as tartrate	2 g
Chlortetracycline (as hydrochloride)	20 g
Excipients q.s. ad	100 g

Indications /

Treatment and prevention of respiratory, enteric and other diseases, mainly caused by microorganisms sensitive to tylvalosin and/or chlortetracycline.

Poultry / Chickens and Turkeys /

- Chronic respiratory disease (CRD), air sacculitis and infectious sinusitis caused by *Mycoplasma gallisepticum*, *Mycoplasma synoviae* and *Mycoplasma meleagridis* (turkeys).
- Necrotic enteritis associated to *Clostridium perfringens*, bacterial enteritis.
- ORT (*Ornithobacterium rhinotracheale*).
- Colisepticemia.
- Infectious coryza.
- Fowl cholera - Pneumonia - Omphalitis - Infectious synovitis.
- Secondary to virus bacterial infections, coccidia (*Eimeria* spp.).
- Secondary infections by *E. coli* associated to rhinotracheitis in turkeys.
- Stress or early mortality due to unspecified reasons.
- In periods of stress, to keep body weight gain.

Pigs /

- Mycoplasmosis, mycoplasmal pneumonia (enzootic) caused by *M. hyopneumoniae*.
- Porcine Proliferative Enteropathy (PPE), swine ileitis caused by *Lawsonia intracellularis*.
- Swine dysentery caused by *Brachyspira hyodysenteriae*.
- Swine colitis caused by *Brachyspira pilosicoli*.
- Atrophic rhinitis, pneumonia, swine pleuropneumonia. Glässer disease, infectious synovitis, necrotic and infectious enteritis of diverse pathologies (Salmonellosis, Colibacillosis).
- Streptococcal lymphadenitis (cervical abscesses) and joints abscesses (*Staphylococcus* spp., *Corynebacterium* spp., *Streptococcus* spp.).
- Secondary to virus bacterial infections or mycoplasmosis.
- To maintain body weight gain during periods of stress.

10 TIMES MORE POWERFUL*

Dosage and administration /

Tylvax® C Px has to be administered orally mixed with food according to the following concentrations:

Poultry - Chickens, turkeys and replacement pullets			
	Quantity of active principle per ton of feed	Inclusion rate of **Tylvax® C Px** in feed	Duration of treatment
Preventive	20 ppm of tylvalosin 200 ppm of chlortetracycline	1 kg/Ton	7 - 14 days
Therapeutic	50 ppm of tilvalosina. 500 ppm of chlortetracycline	2.5 kg/Ton	7 - 10 days In periods of stress: 5 - 7 additional days

Swine			
	Quantity of active principle per ton of feed	Inclusion rate of **Tylvax® C Px** in feed	Duration of treatment
Preventive	20 ppm of tylvalosin 200 ppm of chlortetracycline	1 kg/Ton*	21 days or until the end of the risk period
Therapeutic	50 ppm of tylvalosin 500 ppm of chlortetracycline	2.5 kg/Ton**	7 - 10 days (up to 14 days)

* Up to 2.5 Kg/Ton when the risk high or under conditions of stress.
** Up to 4 Kg/Ton in cases of very serious infections and/or with additional situations of stress.

! For more information on dosage consult the insert of the product..

Withdrawal period / Meat: 5 days. Do not administer to birds laying eggs for human consumption.

★ The association based on tylvalosin with chlortetracycline has demonstrated more effectiveness in the prevention of mycoplasmosis in comparison to the treatment based on the combination of tiamulin with chlortetracycline, offering a longer period of protection at the end of the treatment of turkeys.[3]

3 Evaluation of the effectiveness of **Tylvax® Px** against field strains of *Mycoplasma gallisepticum* in turkeys. Angelats, Roxana. AMAH. Lima 2014.

One step ahead

Tylvax® WS

▸ Water Soluble

Advanced-Generation Macrolide Antibiotic for Administration in Drinking Water

Composition / Each 100 g contain:

Tylvalosin (Acetyl-Isovaleryl) as tartrate	25 g
Excipients q.s. ad	100 g

IIndications /

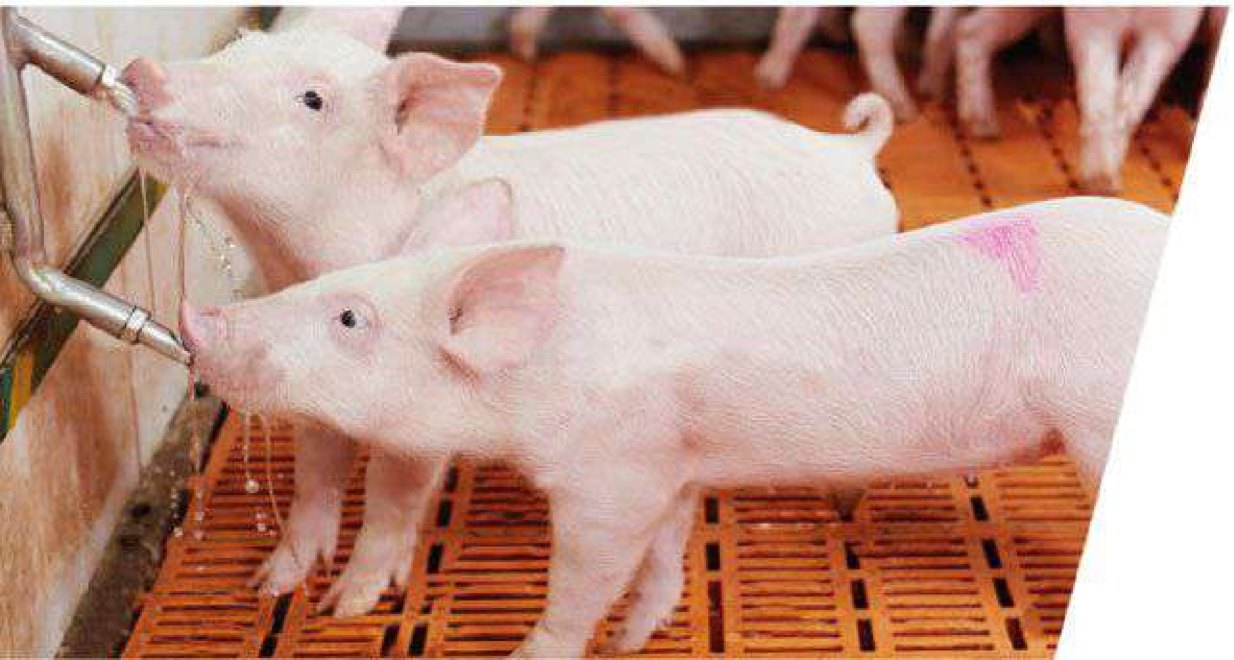
Treatment and prevention of respiratory, enteric and other diseases, mainly caused by microorganisms sensitive to tylvalosin.

Poultry / Chickens and turkeys /

- Micoplasmosis: *Mycoplasma gallisepticum*, *Mycoplasma synoviae* and *Mycoplasma meleagridis*. Enfermedad Chronic respiratory disease (CRD) caused by *gallisepticum*.
- Necrotic enteritis associated to *Clostridium perfringens*, bacterial enteritis.
- ORT (*Ornithobacterium rhinotracheale*).

Pigs /

- Mycoplasmosis, Mycoplasmal pneumonia (enzootic) caused by *M. hyopneumoniae*.
- Porcine Proliferative Enteropathy (PPE), swine ileitis caused by *Lawsonia intracellularis*.
- Swine dysentery caused by *Brachyspira hyodysenteriae*.
- Swine colitis caused by *Brachyspira pilosicoli*.



Withdrawal period /

- Swine: 1 day.
- Poultry: 2 days.
- Laying hens: 0 days.

10 TIMES MORE POWERFUL*

Dosage and administration /

Tylvax® WS has to be administered orally in drinking water at the following concentrations:

Poultry - Chickens, turkeys and replacement pullets				
	Dosage of tylvalosin per kg of boby weight	Quantity of active principle per 1,000 L of water	Inclusion rate of **Tylvax® WS** in water	Duration of treatment
Preventive	20-25 mg/kg.	100-125 g (100-125 ppm)	80-100 g/200 L.	First 3 days of life
	10-15 mg/kg.	50-75 g (50-75 ppm)	40-60 g/200 L.	3 - 4 additional days in stress situations and/or 3-4 days each month
Therapeutic	20-25 mg/kg.	100-125 g (100-125 ppm)	80-100 g/200 L.	3 days

Swine				
	Dosage of tylvalosin per kg of boby weight	Quantity of avtive principe per 1,000 L of water	Inclusion rate of **Tylvax® WS** in water	Duration of treatment
Preventive	5 mg/kg.	50 g (50 ppm)	100 g/500 L.	3 - 4 días
General therapeutic	5-10 mg/kg.	50-100 g (50-100 ppm)	100-200 g/500 L.	3 - 5 días
Therapeutic PPE (ileitis)	5 mg/kg.	50 g (50 ppm)	100 g/500 L.	5 días

Note: Assuming a daily water consumption per pig equivalent to 10% of its weight.

! For more information on dosage consult the insert of the product.

One step ahead

Powerful mycoplasmicide effect
ten times higher than tylosin*

10 TIMES
MORE POWERFUL

FIND OUT
THE MAXIMUM POWER
CONTROLLING RESPIRATORY AND ENTERIC DISEASES

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