



# Mycotoxin syndromes differential diagnosis



## Top ear necrosis

Field	causes	solution	+ BIOMIN solution
<b>NUTRITION</b>	Protein (biogenic amines), fiber, toxins (!) Cu and/or Mg deficiency	Lower/best protein, higher fiber, Acidification, fulfill Cu, Mg requirements	Digestarom® P.E.P. Mycofix®, Biotronic® SE
<b>ENVIRONMENT</b>	O <sub>2</sub> , room, feeding space, nr./pen, (biting), etc.	Ventilation, more/larger feeder, less pigs/pen, etc.	
<b>MANAGEMENT</b>	Mixing, cannibalism	Gasoline, evening mixing, straw, etc.	
<b>DISEASE</b>	PCV2, <i>Strepto</i> , <i>E.coli</i> , many sub-clinical gut and lung afflictions	Air, prebiotics, probiotics, acidification, vaccination, antibiotic	Biotronic® SE, Digestarom® P.E.P.

## Conjunctivitis

Field	causes	solution	+ BIOMIN solution
<b>NUTRITION</b>	Mycotoxins (chronic trichothecenes)	Prevent moulds, purchase clean raw materials, etc.	Mycofix®
<b>ENVIRONMENT</b>	NH <sub>4</sub> , powder	Ventilation, relative humidity, etc.	
<b>MANAGEMENT</b>	Manure management, dirty animals	Efficient programmed manure removal, clean animals, etc.	Digestarom® P.E.P.
<b>DISEASE</b>	<i>Chlamydia</i> , PRRS, (CSF)	Biosecurity, hygiene, vaccination, antibiotic	



## Skin necrosis

Field	causes	solution	+ BIOMIN solution
<b>NUTRITION</b>	Mycotoxins (T-2 toxin, Ergot, DON)	Prevent moulds, purchase clean raw materials, etc.	Mycofix®
<b>ENVIRONMENT</b>	Pillars, nipples, broken walls, whatever can produce injury	Remove hurting hardware	
<b>MANAGEMENT</b>	Mixing, sorting, feeding (indigestion)	Sexing, balanced diet, avoid sudden diet changes	Digestarom® P.E.P. Digestarom®
<b>DISEASE</b>	<i>Staphylococcus hyicus</i> (Greasy pig disease)	Treat gilts' siblings immediately, sort out at first signs, hygiene, antibiotics	

## Rectal prolapse

Field	causes	solution	+ BIOMIN solution
<b>NUTRITION</b>	Mycotoxins (ZEN), high starch,	Prevent moulds, purchase clean raw materials, etc.	Mycofix®
<b>ENVIRONMENT</b>	Nipples/bowls, water	Verify water pressure and drinkers efficiency	Digestarom® P.E.P.
<b>MANAGEMENT</b>	Feeding (constipation), water intake, overcrowding stepping over, cough, seasonality, tail docking, tail biting, sudden diet changes	Fiber, avoid sudden diet changes, avoid water shortage, manage feed changes gradually 3-5 days	Digestarom® P.E.P. Digestarom®
<b>DISEASE</b>	Fever	Anti-inflammatory drug, antibiotic. [Surgery]	



## Subclinical mycotoxicoses in pigs Performances [ADG, lean meat, piglets/sow/year]

Field	causes	solution	+ BIOMIN solution
<b>NUTRITION</b>	Protein, fiber, energy, toxins (!)	Better protein, Acidification, etc.	Digestarom® P.E.P. Digestarom®, Mycofix®, Biotronic® SE
<b>ENVIRONMENT</b>	O <sub>2</sub> , room, feeding space, nr./pen, etc.	Ventilation, more/larger feeder, less pigs/pen, etc.	
<b>MANAGEMENT</b>	Welfare, sorting, sexing, etc.	Gasoline, evening mixing, straw, etc.	
<b>DISEASE</b>	Sub-clinical gut and lung diseases	Biosecurity, Air, prebiotics, probiotics, acidification	Biotronic® SE Digestarom® P.E.P. Digestarom®