



Biotix S

Product book 2019

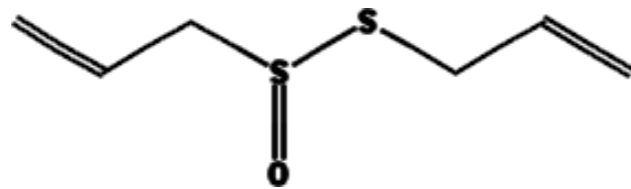


Biotix S – active substances

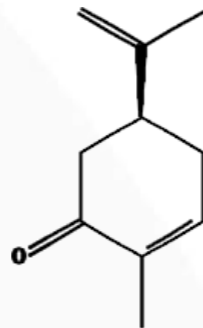
The garlic concentrate contained in BIOTIX S includes a number of different sulphuric phytoncides obtained from raw plant



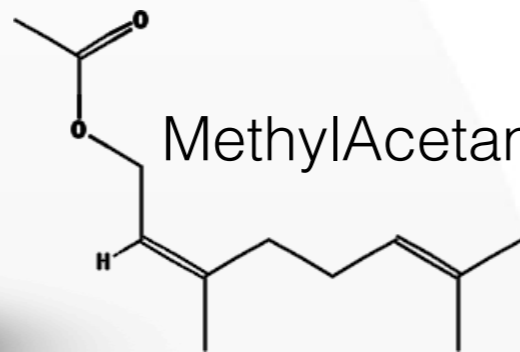
Allicin



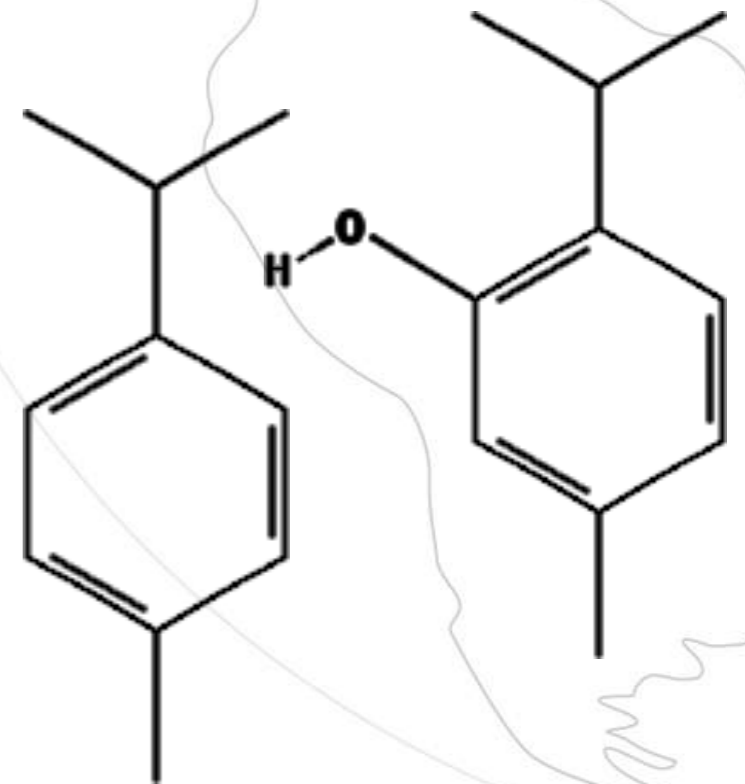
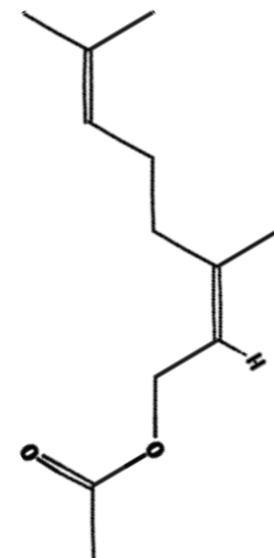
D-Karwon



MethylAcetan



Sulphur derivatives





Garlic - active compounds

Extraction proces



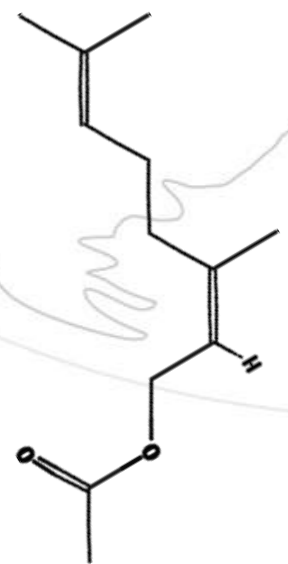
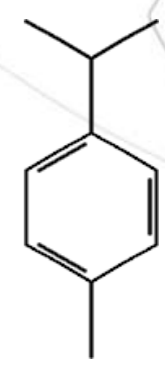
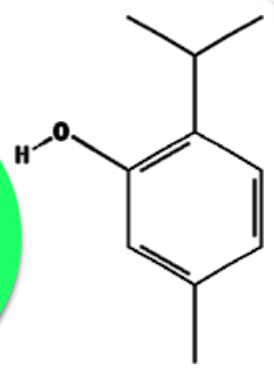
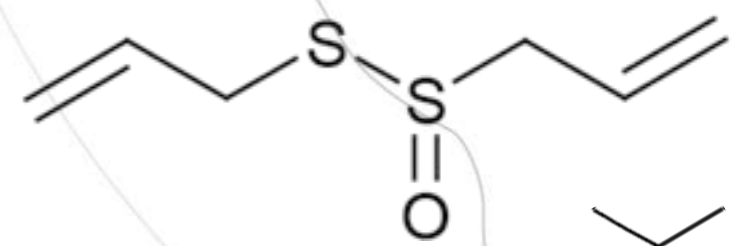
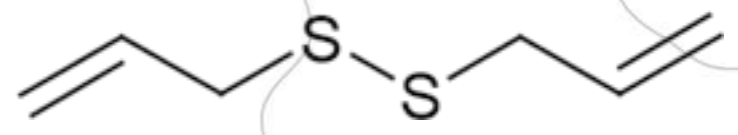
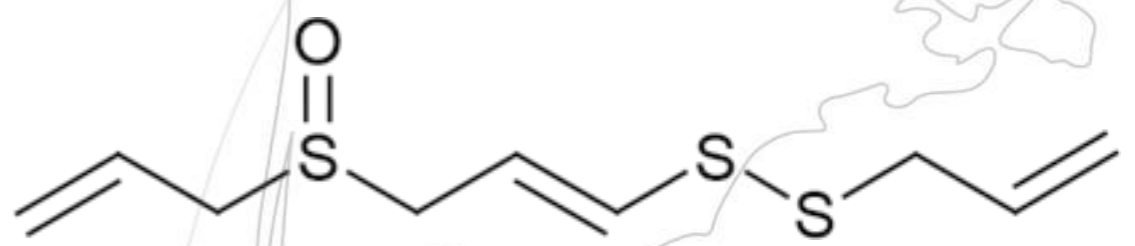
Ajoen

Trisulfides

Disulfides

Allicin

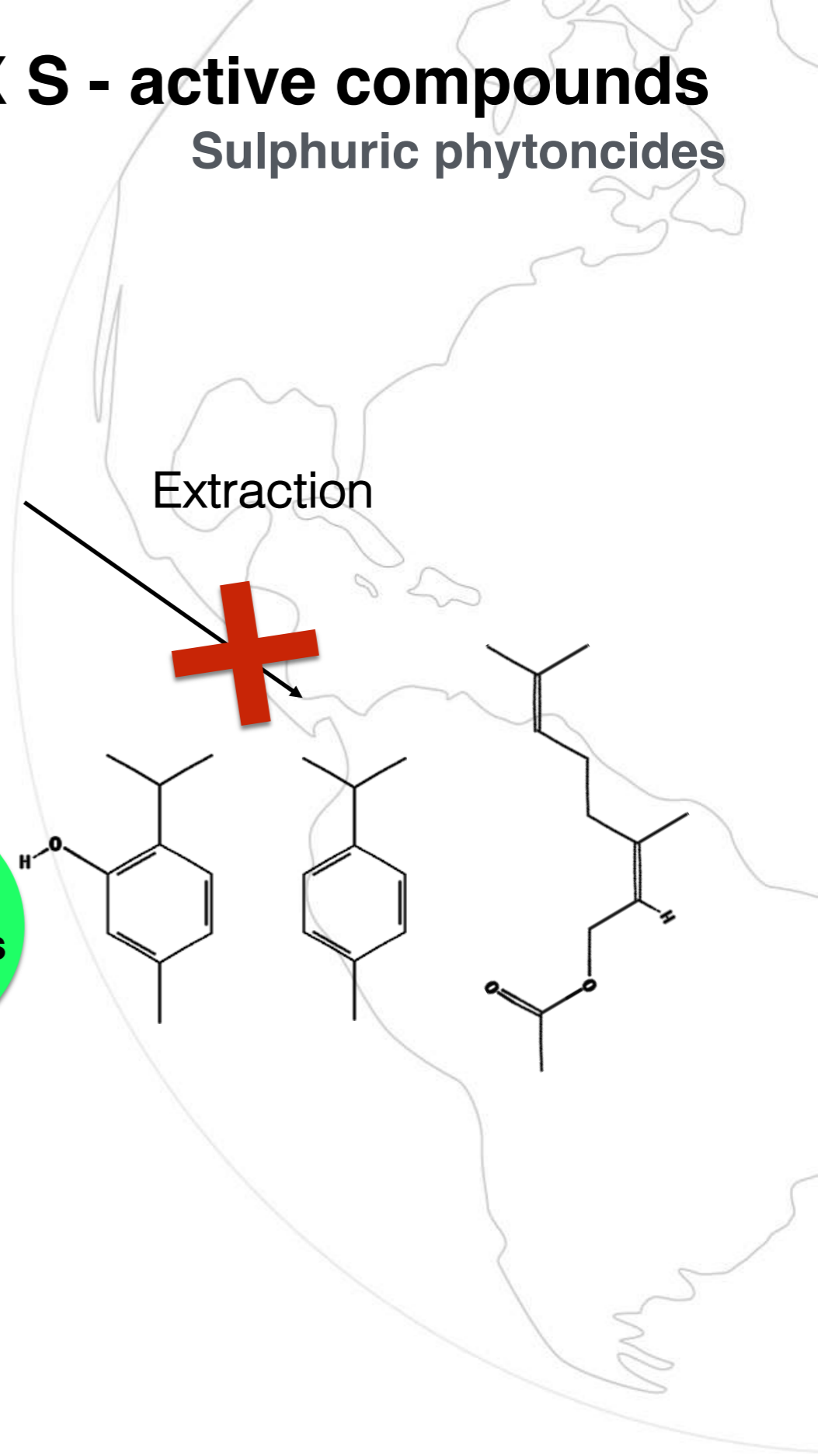
Sulphur derivatives





BIOTIX S - active compounds

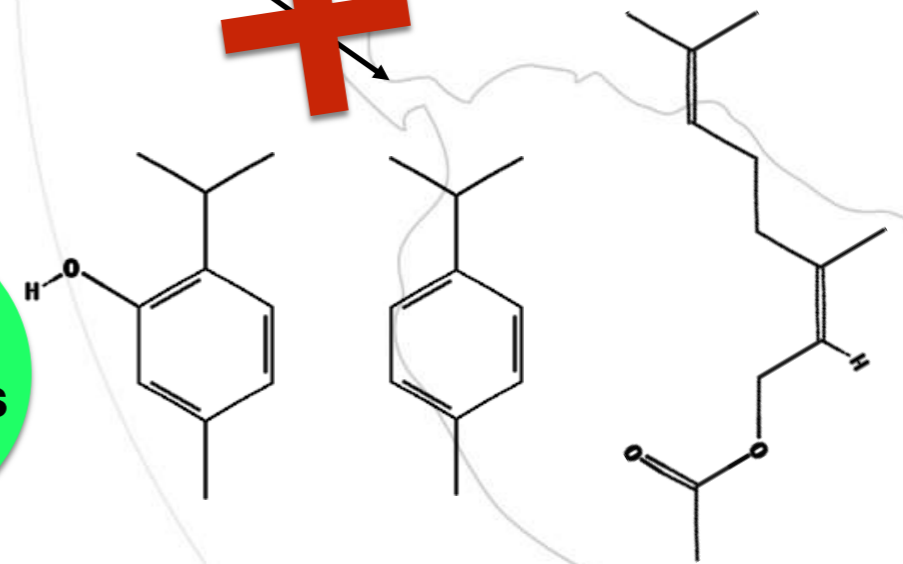
Sulphuric phytoncides



Extraction



Sulphur derivatives



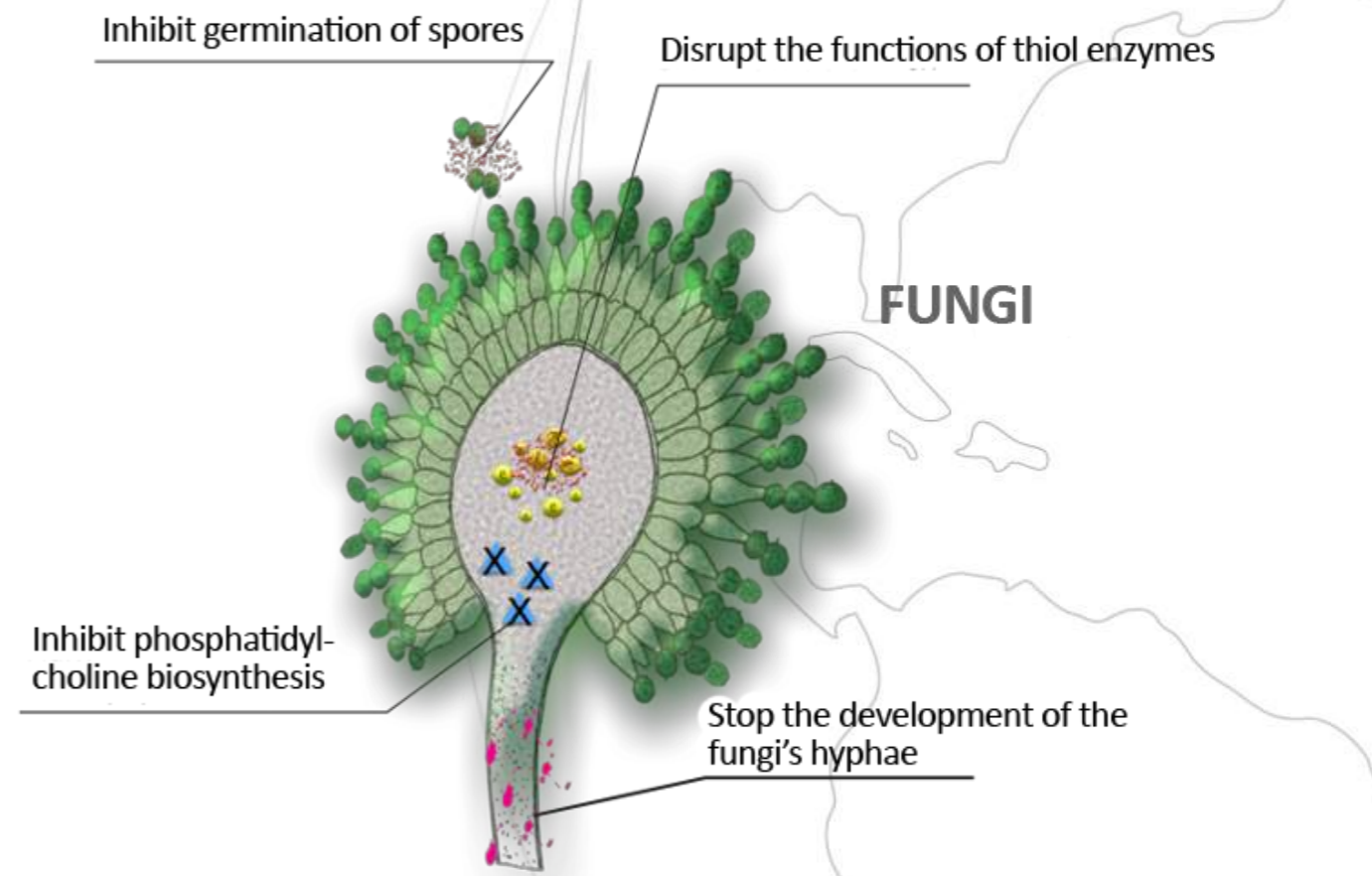
+
Stabilators





PHYTONCIDES - MECHANISM OF ACTION

PHYTONCIDES INHIBIT THE GROWTH OF BACTERIA, FUNGI AND VIRUSES ON MANY LEVELS



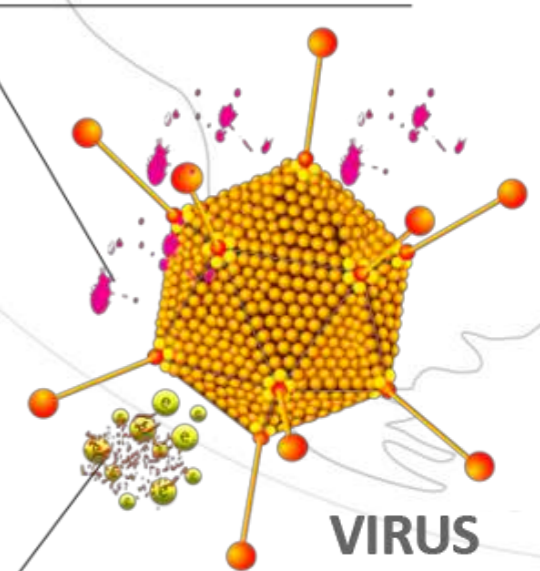
Block enzymes important for bacterial metabolism, e.g. alcohol dehydrogenesis

Freely penetrate through cellular membranes, disturbing their work

Inhibit DNA and RNA synthesis



Block processes dependent on integrin, affect the adhesion of the virus





MIC – Minimum inhibitory concentration



P. fluorescens (200 µg/mL)

S. aureus (200 µg/mL)

B. subtilis (200 µg/mL)

C. albicans (7 µg/mL)

Streptococcus spp. (200 ug/ml)

E.coli (1,72 ug/ml)

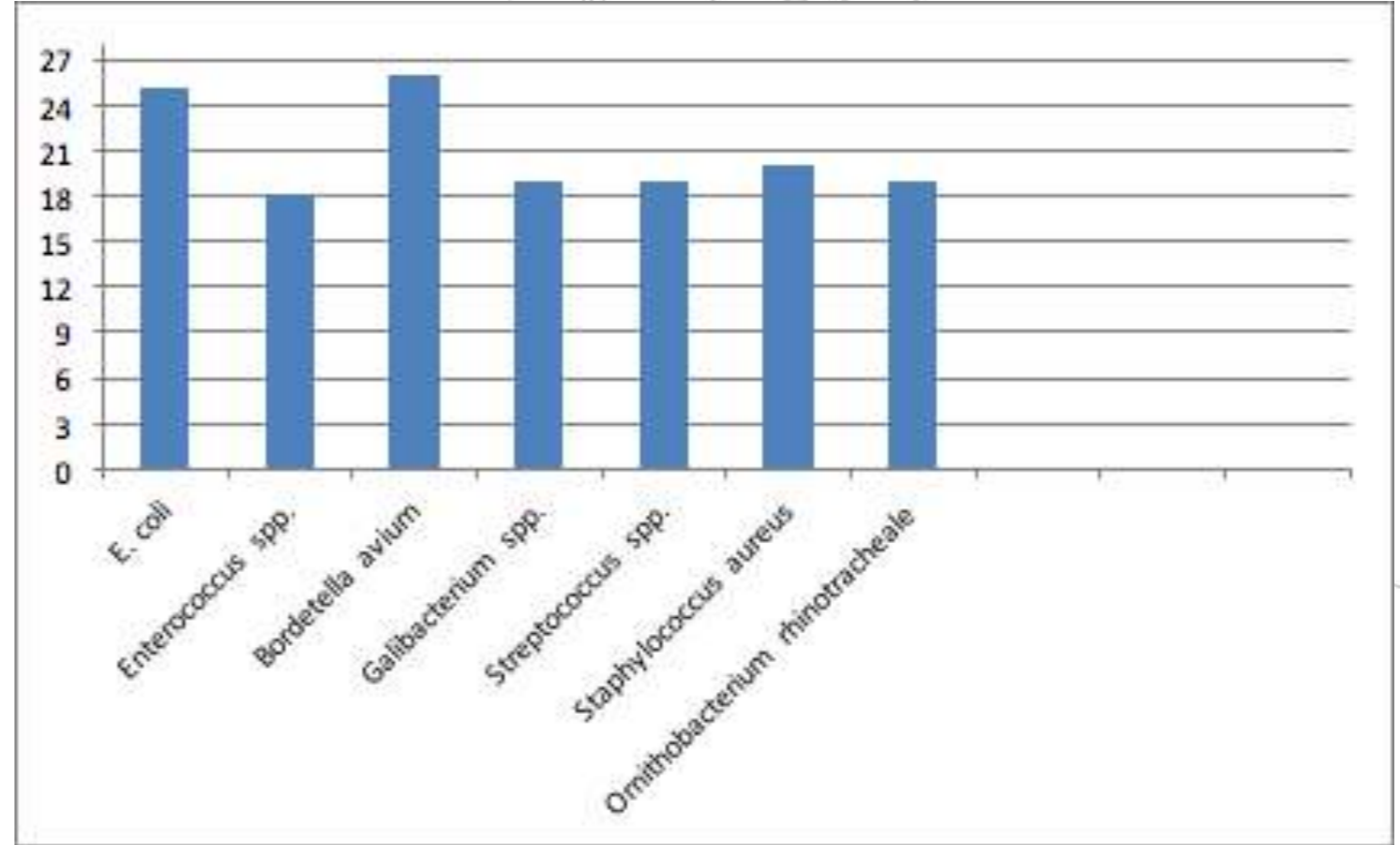


Laboratory investigation

In vitro antimicrobial activity



Inhibition zone (mm)





BIOTIX S – clinical particulars

Target species





BIOTIX S – clinical particulars

Mode of administration and dose rate



Oral administration through
the drinking water



Biotix S 250 – 500 ml / 1000 of drinking water / 12-24 hours daily / 5 days



BIOTIX S – clinical particulars

Indication for use

When should I use Biotix S?

Disease prevention
From day old chicks

During viral infection
Immediate when first signs are noted

Multiinfection caused by viruses and bacterias
2nd - 5th week of birds life

In case of resistant bacterial infection

Subclinical coccidiosis
18th – 32nd day of birds life





BIOTIX S – clinical particulars

Special precautions for use



Handle this product with great care to avoid sun and high temperature exposure. Store between 15 and 25°C degree.

Interaction with other medicinal products – None known
Do not use with probiotics and mineral products

Incompatibilities
In the absence of compatibility studies, this products must not be mixed with veterinary medicinal products

Expected farm effect: not faster than 4-5 days



BIOTIX S | DOSAGE

250ml
or
500ml

1000 l
drinking
water

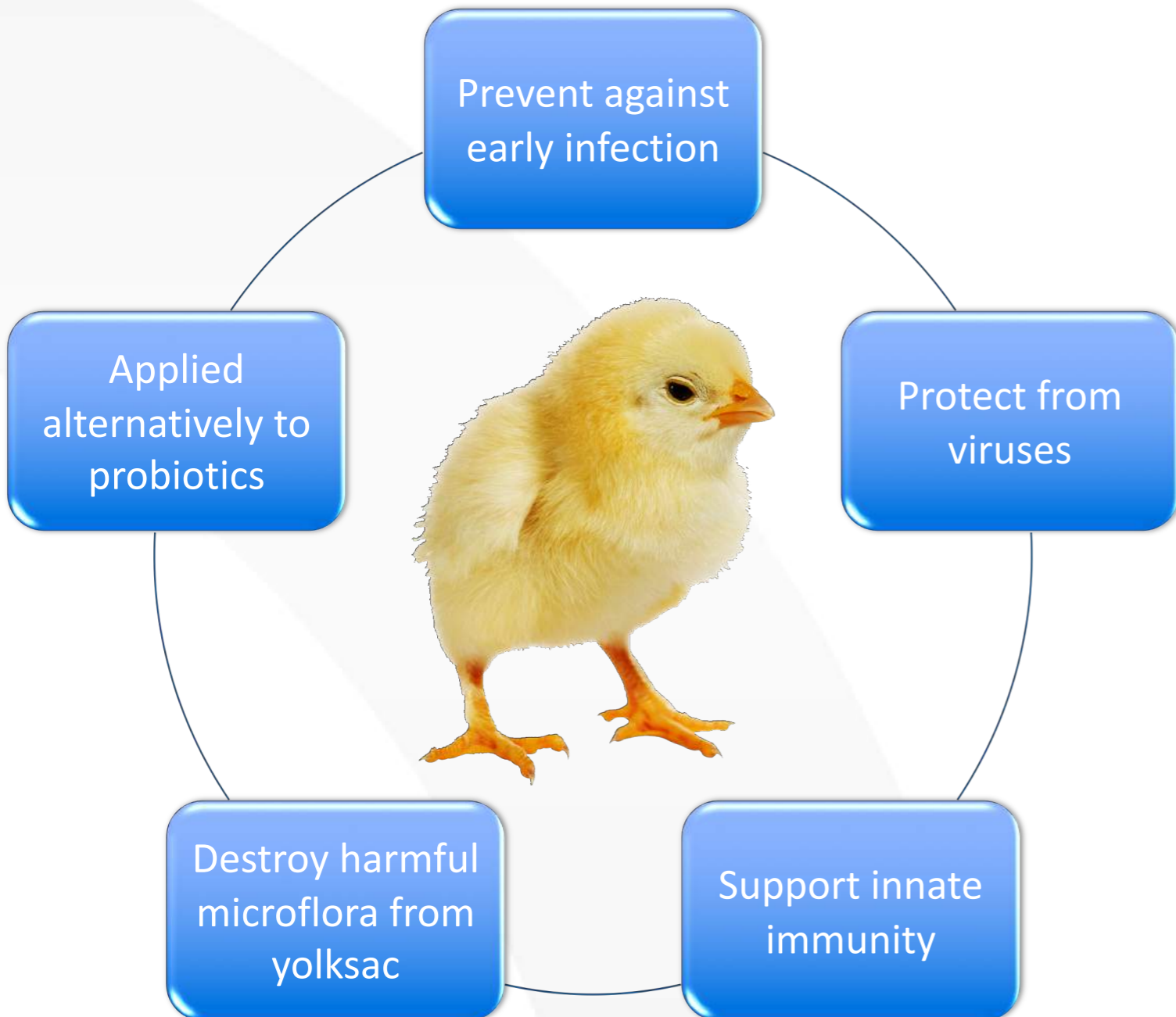
24 hours
12 hours*

3 days

BIOTIX S – farm effect

Preventive therapy

Day old chicks



*** If applied alternatively with Biostarter liquid or Enterocid**



BIOTIX S | DOSAGE

500ml	1000 l drinking water	12 hours	3 days
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BIOTIX S – farm effect

Preventive therapy

2nd / 3rd week

Prevent against
coccidiosis

Improve aquired
immunity

Protect from IB
outbreak

Support flock in
case of Clostridium
hazard



None contraindication to use in
time of flock vaccination



BIOTIX S – farm effect

Mycoplasma infection
Clinical observation

Swollen infraorbital sinuses





BIOTIX S – farm effect

Mycoplasma infection
Clinical observation

Swollen foot joints





BIOTIX S – farm effect

Mycoplasma infection
Necropsy findings

Caseous exudate fills sinuses





BIOTIX S – farm effect

Mycoplasma infection
Necropsy findings

Fibrinous perihepatitis, pericarditis





BIOTIX S – farm effect

Mycoplasma infection
Necropsy findings

Caseous exudate around tendon sheaths





BIOTIX S – farm effect

Mycoplasma infection
Treatment

1 – 2 Day



Biotix S 1000 ml / 1000 of drinking water / 12 hours daily
Mintamix 250 ml / 1000 of drinking water / 12 hours daily

3 – 5 Day



Biotix S 500 ml / 1000 of drinking water / 12 hours daily
Mintamix 250 ml / 1000 of drinking water / 12 hours daily

6 – 7 Day



Biotix S 250 ml / 1000 of drinking water / 12 hours daily
Mintamix 250 ml / 1000 of drinking water / 12 hours daily



BIOTIX S – farm effect

Subclinical Coccidiosis – *Eimeria acervulina* / *tenella*

Clinical observation



Depression

Ruffled feathers

No increasing mortality

Worsening uniformity

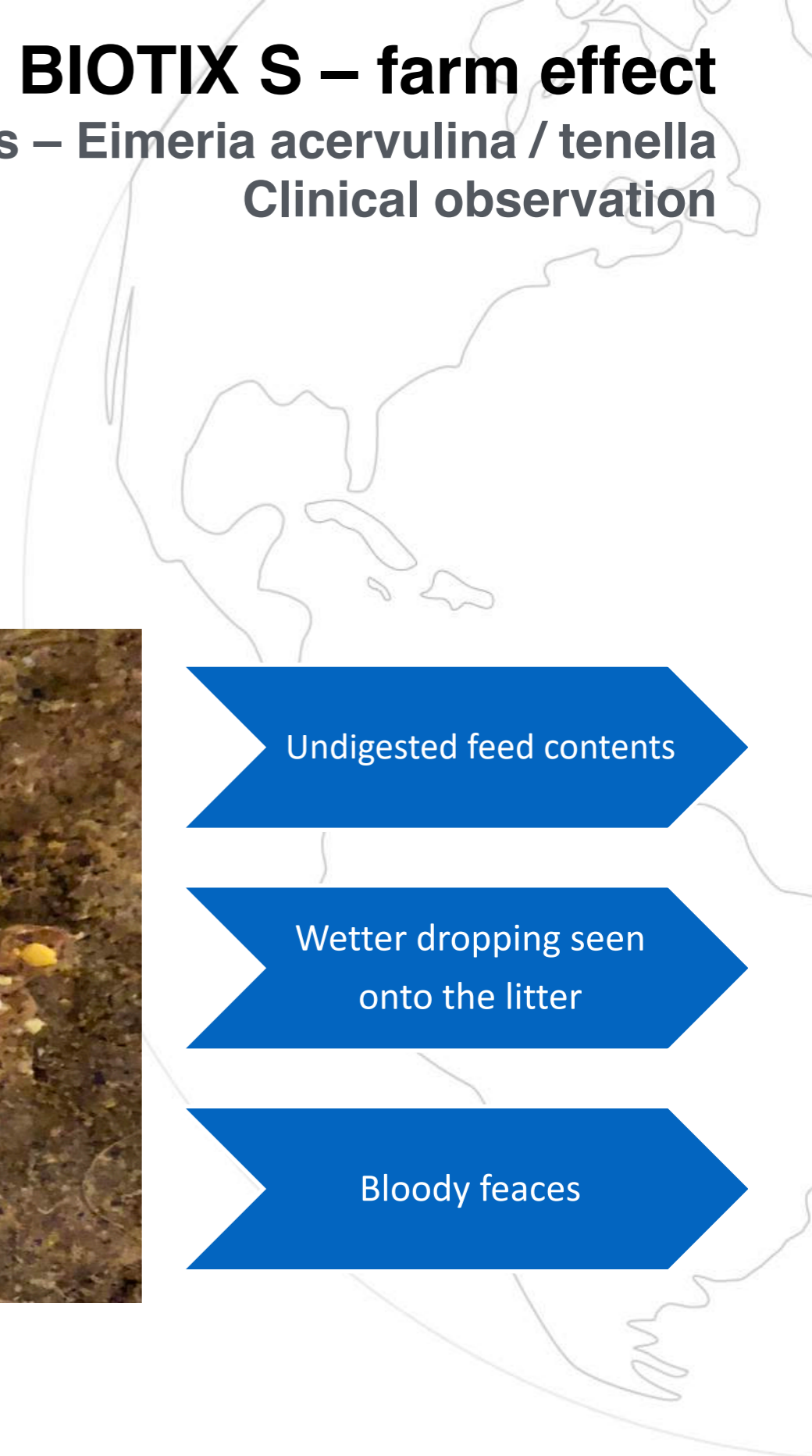
* Prodromal sings were detected only at barn 1



BIOTIX S – farm effect

Subclinical Coccidiosis – *Eimeria acervulina* / *tenella*

Clinical observation



Undigested feed contents

Wetter dropping seen onto the litter

Bloody feaces

* Prodromal sings were detected only at barn 1



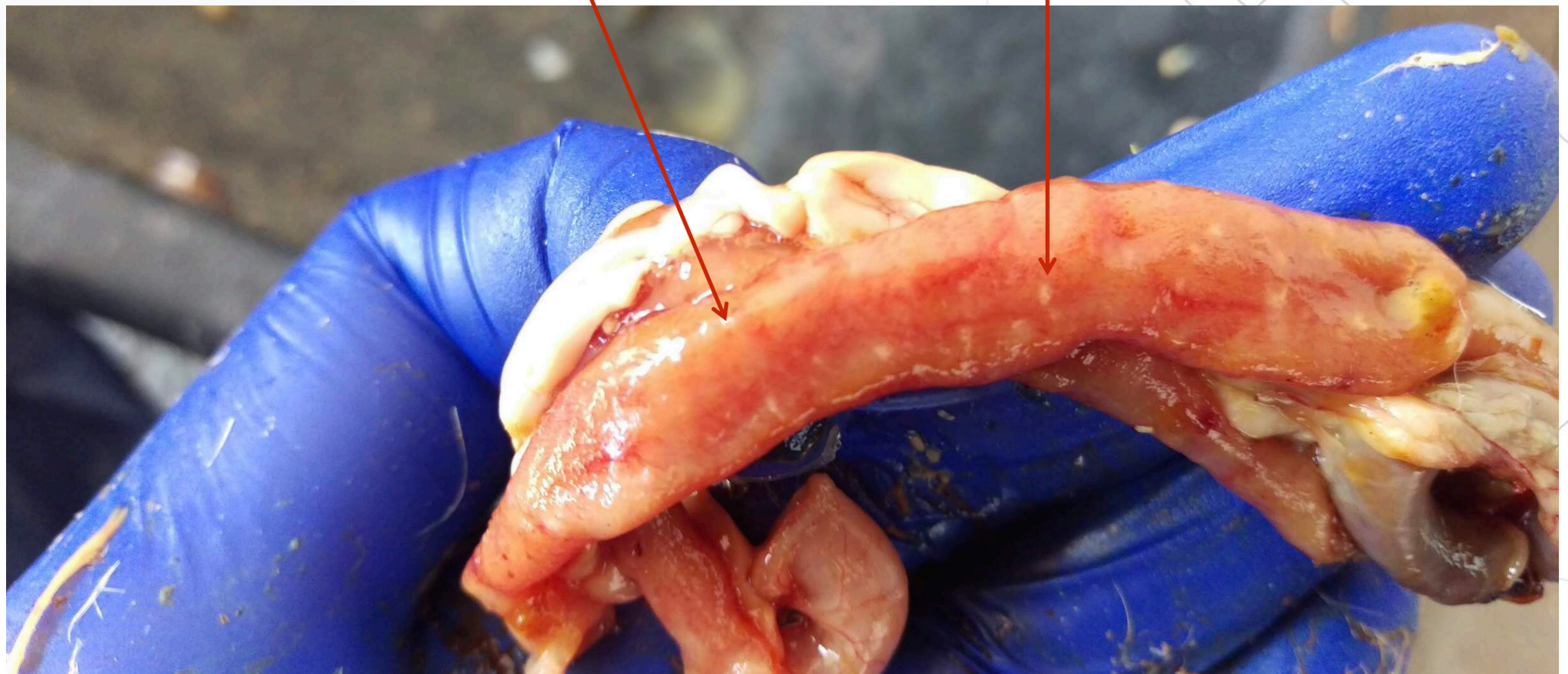
BIOTIX S – farm effect

Subclinical Coccidiosis – *Eimeria acervulina* / *tenella*

Necropsy findings

Thickened intestinal wall

Whitish round lesions





BIOTIX S – farm effect

Subclinical Coccidiosis – *Eimeria acervulina* / *tenella*

Necropsy findings

Cecal pouch greatly enlarged and distended with clotted blood*



* Several birds showed severe post-mortal signs



BIOTIX S – farm effect

Subclinical Coccidiosis – Eimeria acervulina / tenella
Laboratory investigation - OPG

Before BIOTIX S application

Barn 1 - Test
84 000 oocyst / 1g

Barn 2 - Control
24 000 oocyst / 1g



When collecting fecal samples in the barn, it is important to obtain a sample that is representative of the full barn environment.



BIOTIX S – farm effect

Subclinical Coccidiosis – *Eimeria acervulina* / *tenella*
Treatment

Biotix S 500 ml / 1000 of drinking water / 12 hours daily / 5 days*

After BIOTIX S application

**Barn 1 - Test
3 400 oocyst / 1g**

**Barn 2 - Control
17 800 oocyst / 1g**



Droppings become more solid. No evidence of undigested feed

* Acute Coccidiosis should be treated with Coccilin V Plus



BIOTIX S – farm effect

Viral infection – Inclusion body hepatitis
Clinical observation

Sudden onset of mortality

Sick birds adopt a crouching position

Daily weight gain drops rapidly

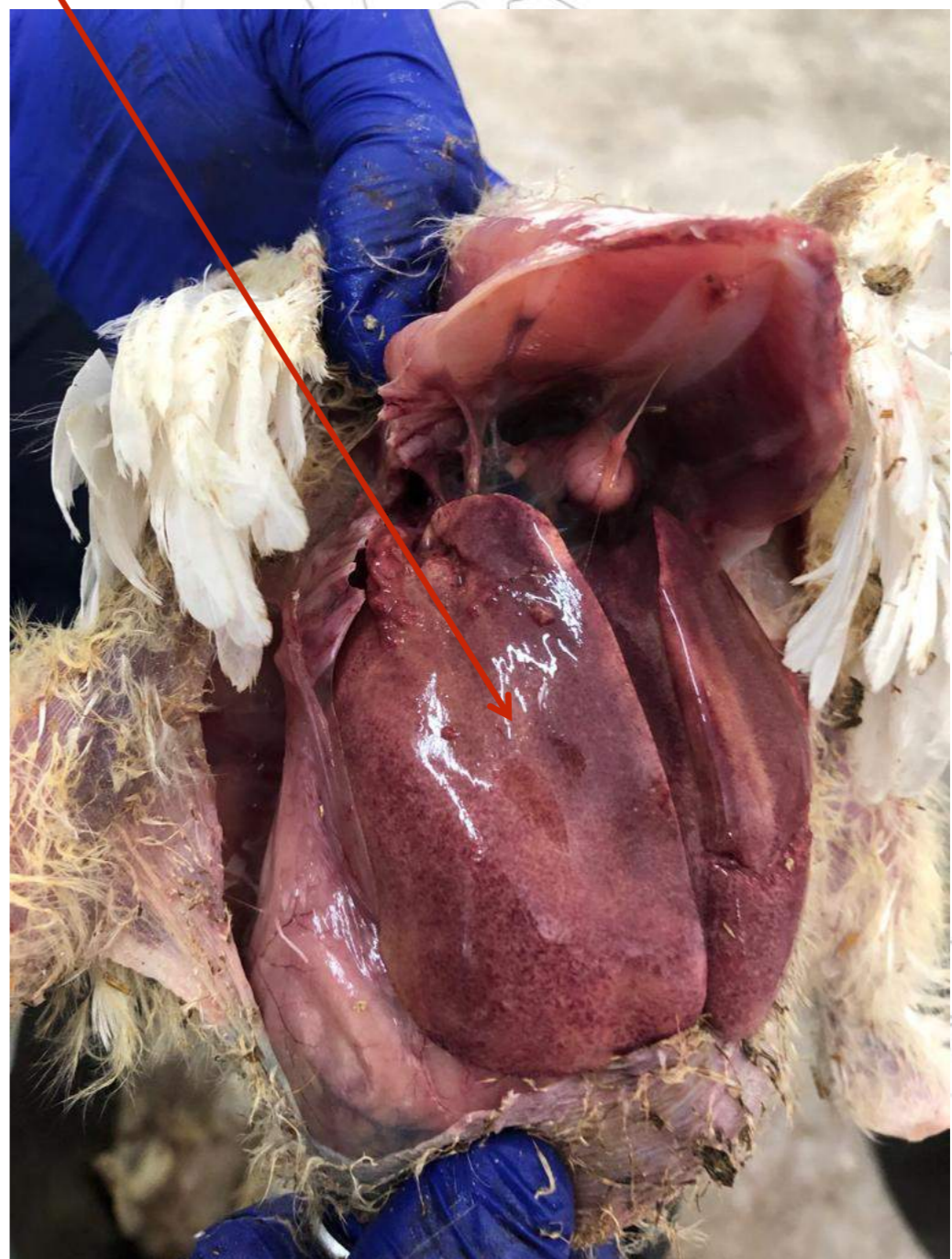
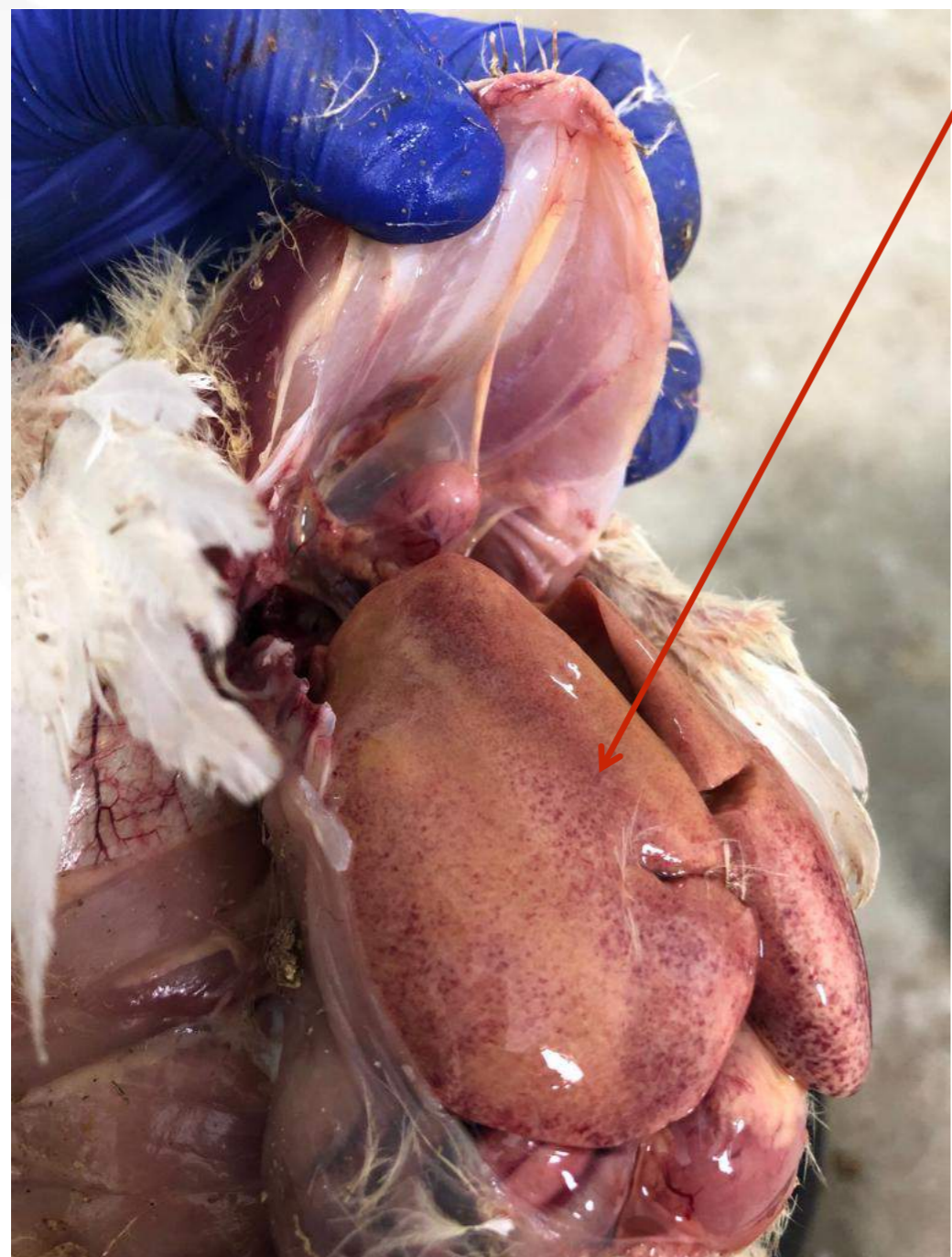
Flock become depressed



BIOTIX S – farm effect

Viral infection – Inclusion body hepatitis
Necropsy findings

Petechial hemorrhages present in the liver

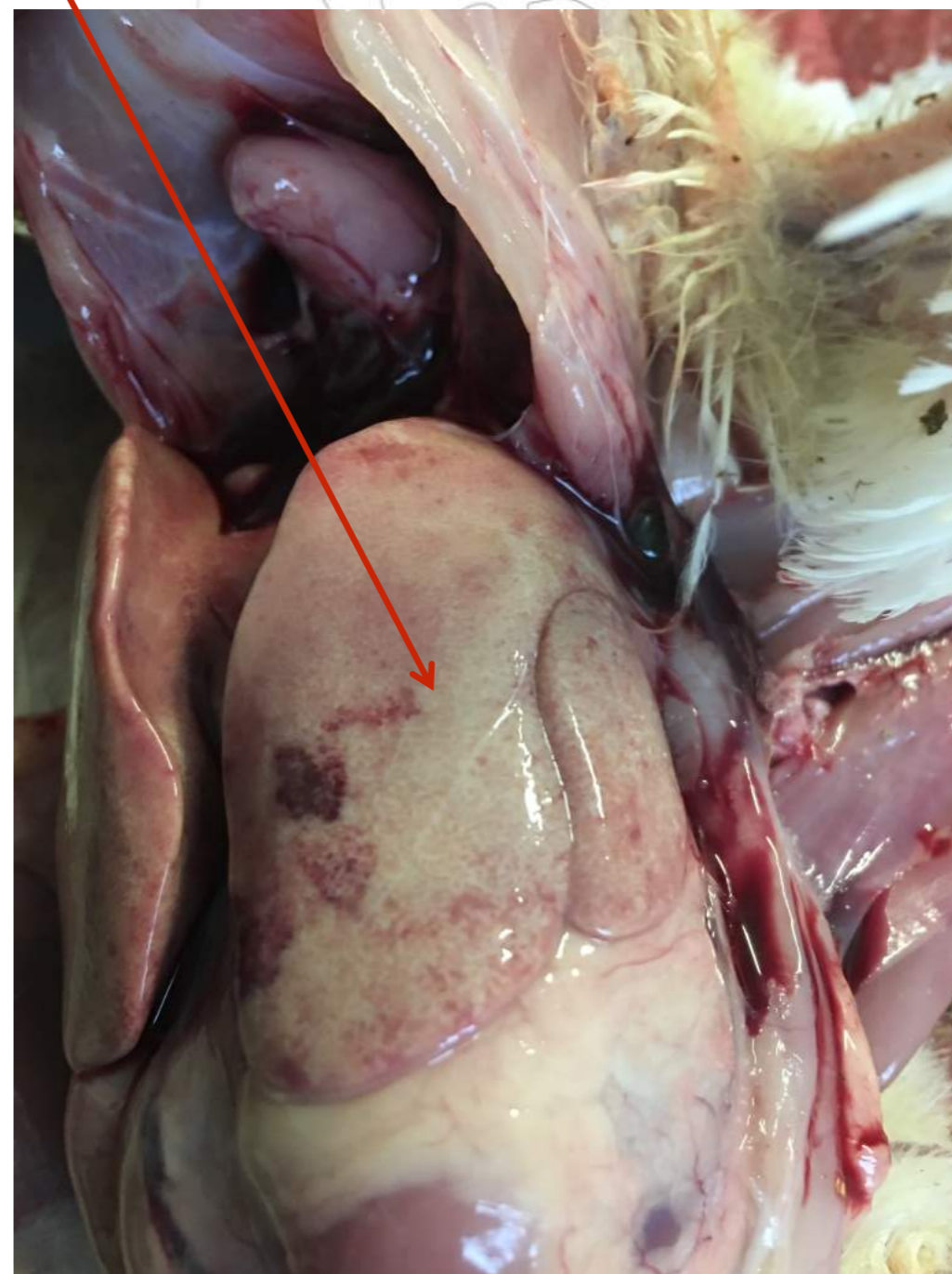
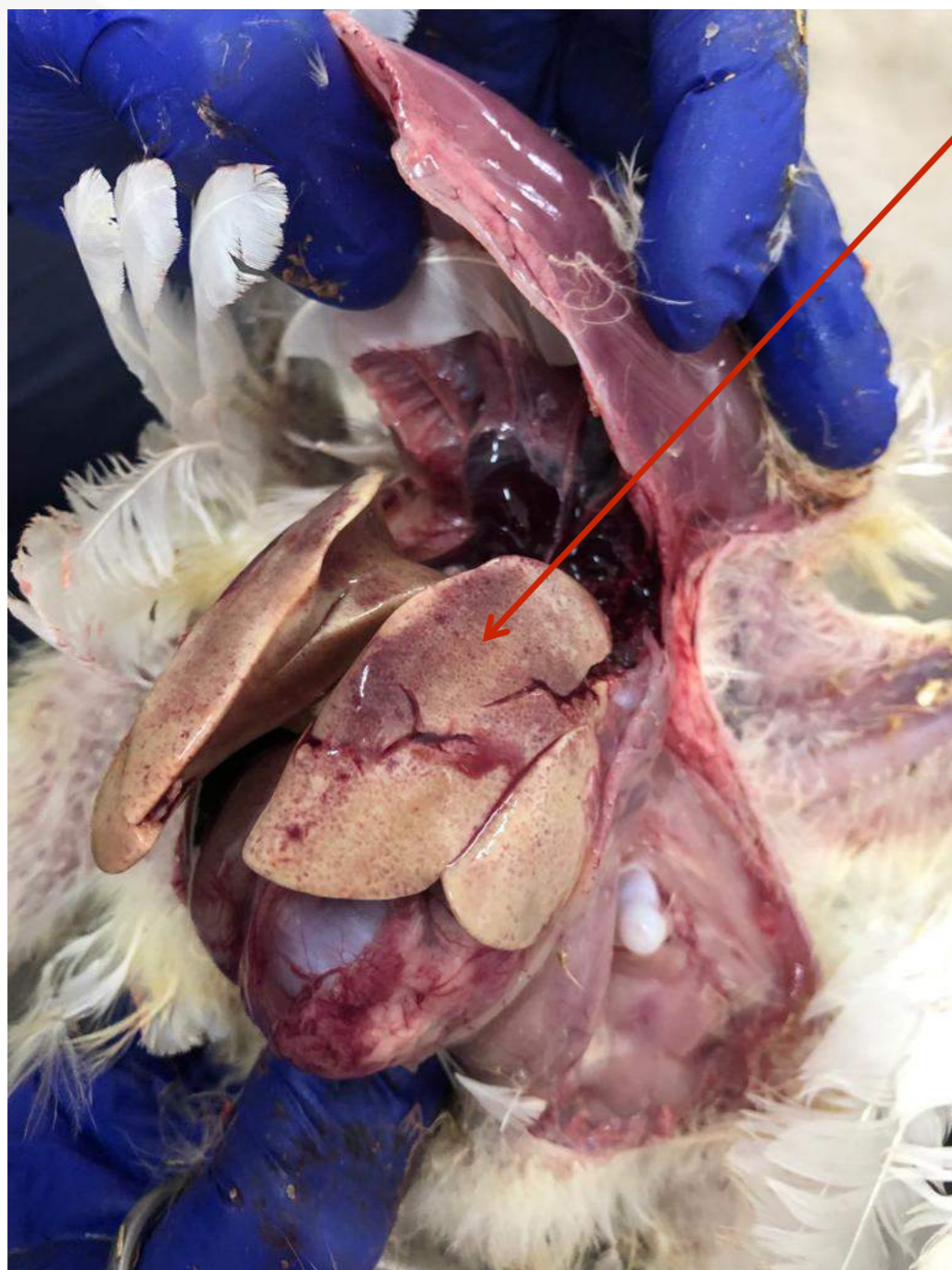




BIOTIX S – farm effect

Viral infection – Inclusion body hepatitis
Necropsy findings

Pale, friable, swollen livers





BIOTIX S – farm effect

Viral infection – Inclusion body hepatitis
Treatment

Biotix S 500 ml / 1000 of drinking water / 12 hours daily / 5 days
Hepamix 500 ml / 1000 of drinking water / 12 hours daily / 5 days



No more acute liver lesion observed

Daily mortality become standard

Daily weight gain set as regular

No bacterial coinfection were noted

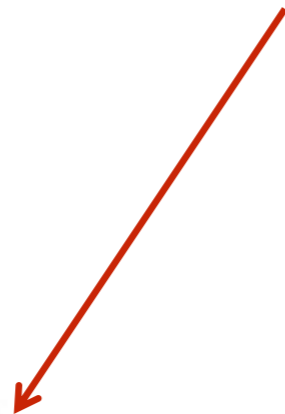
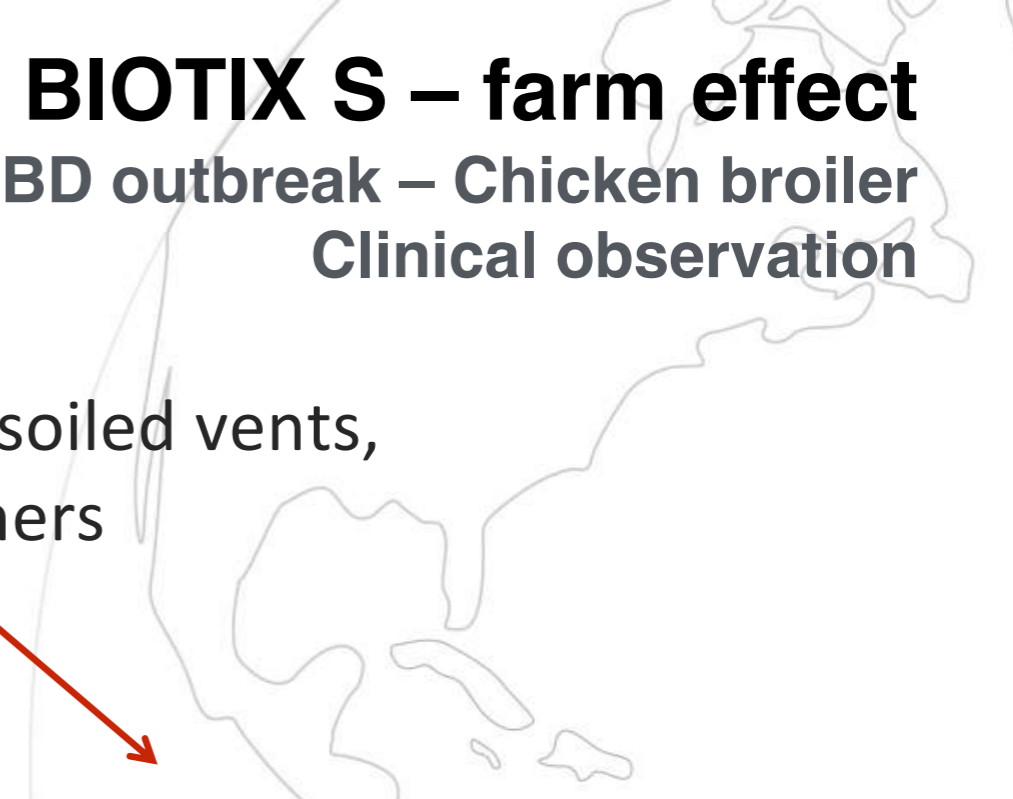


BIOTIX S – farm effect

IBD outbreak – Chicken broiler

Clinical observation

Depression, watery diarrhoea, soiled vents, anorexia, ruffled feathers





BIOTIX S – farm effect

IBD outbreak – Chicken broiler

Necropsy findings

Dehydrated carcass, petechial haemorrhages in the leg and thigh muscles

Secondary bacterial coinfection





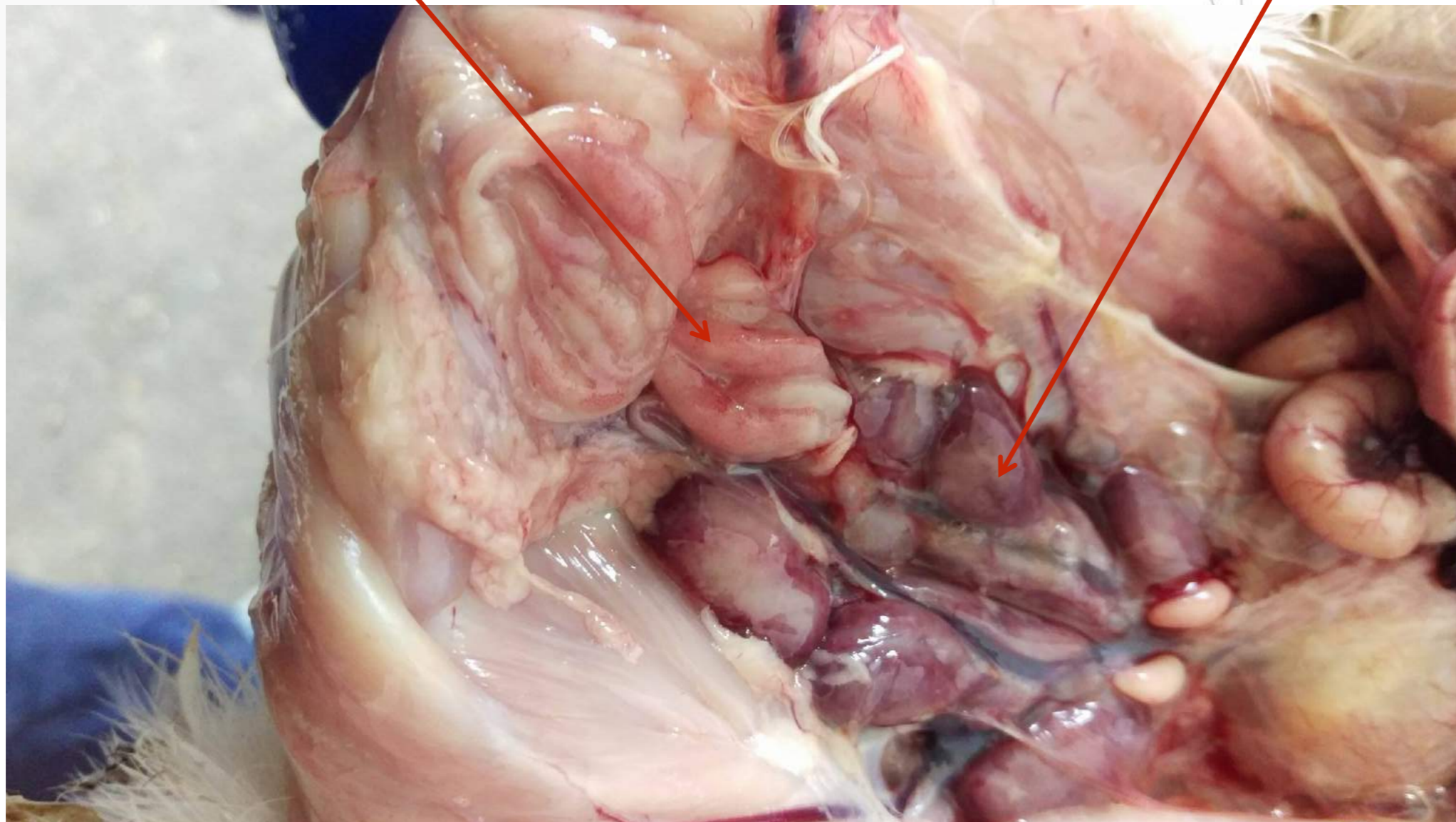
BIOTIX S – farm effect

IBD outbreak – Chicken broiler

Necropsy findings

Inflammation in the bursa of Fabricius

Kidneys appear swollen and contain urate deposits and cell debris





BIOTIX S – farm effect

IBD outbreak – Chicken broiler Treatment

