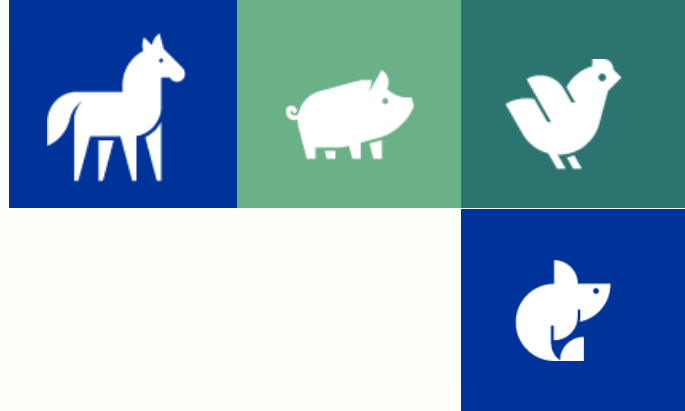




ENTERITELE VIRALE SI COLIBACILARE LA VITEII DE LAPTE

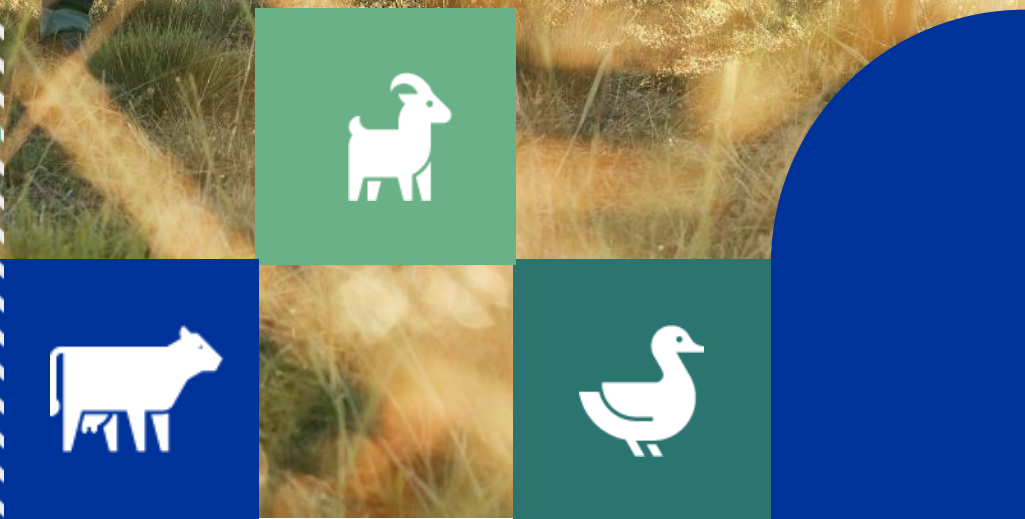


Funded by
the European Union



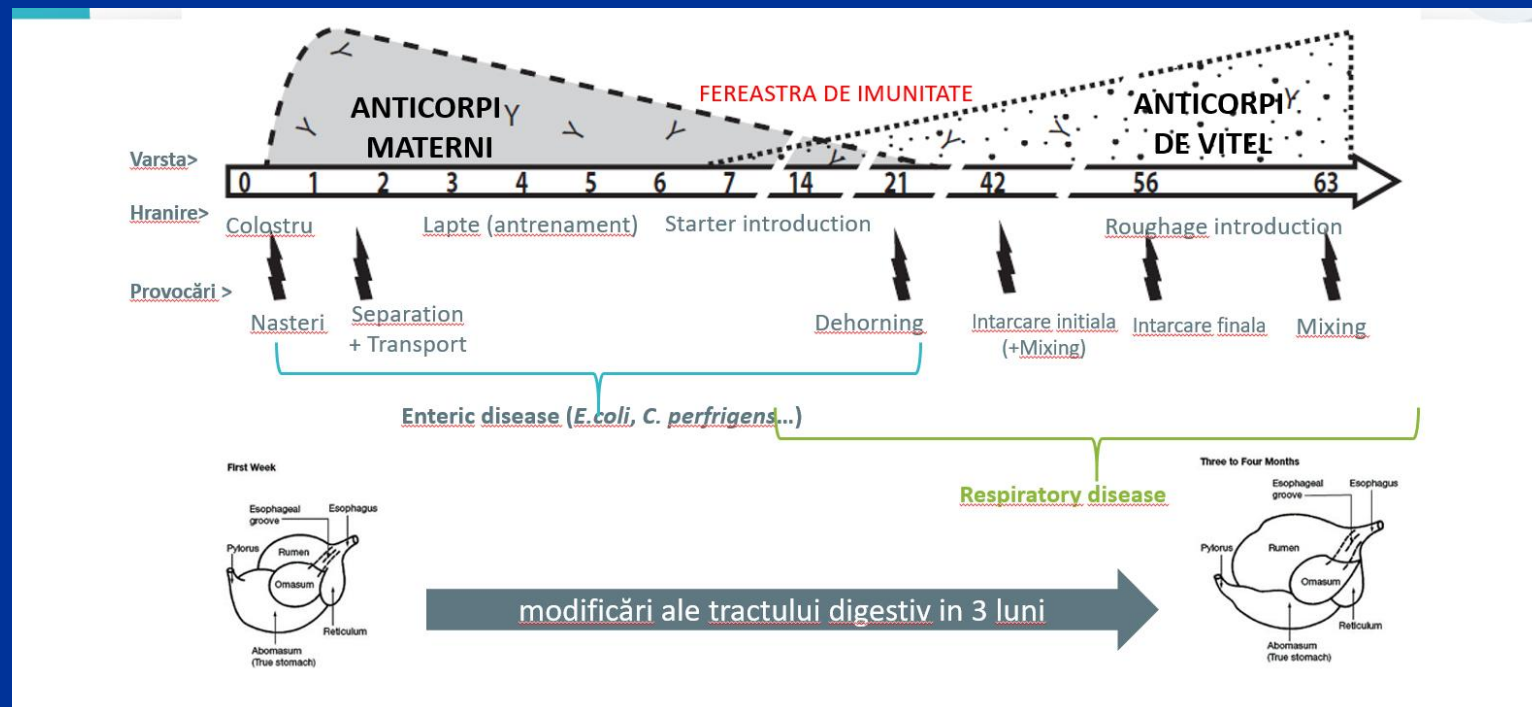
ENTERITELE VIRALE SI COLIBACILARE LA VITEII DE LAPTE

STAN GIANINA



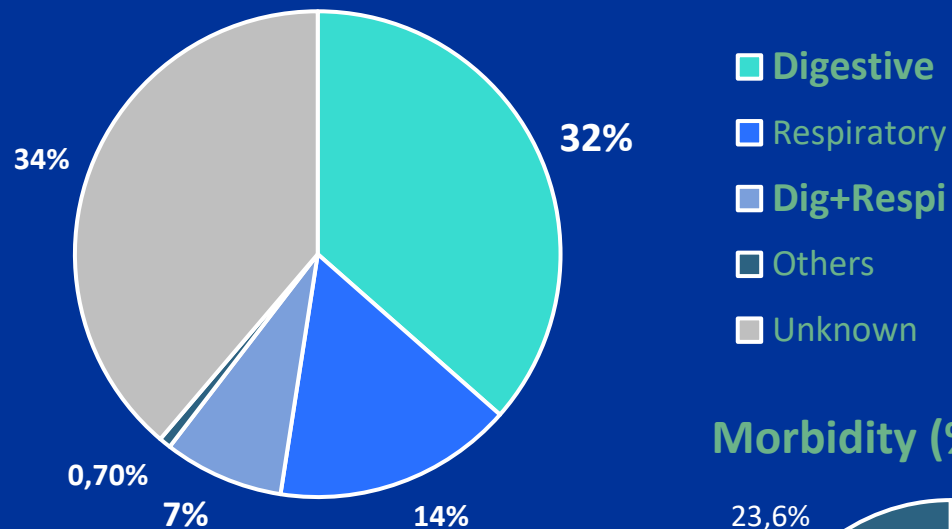
ENTERITELE LA VITEII DE LAPTE

- Colibaciloza = E. coli
- Enterita colibacilara – grav
- Primele 5-7 zile de viata, dar si 10-14 zile de viata

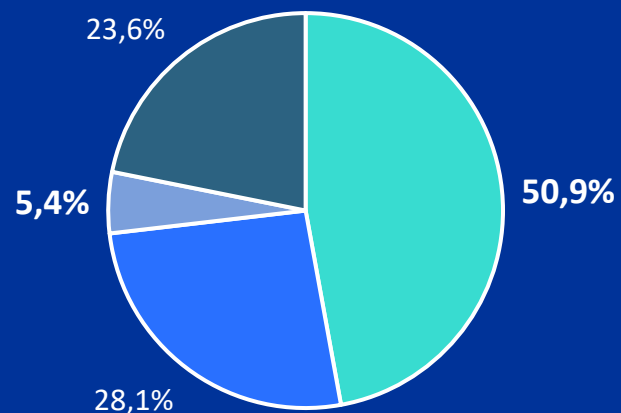


ENTERITELE LA VITEII DE LAPTE

Mortality (% deaths)



Morbidity (% of sick calves)



Problemele digestive si respiratorii la vitei reprezinta cea mai inalta preocupare cu impact major economic pe termen scurt, cu impact negativ pe termen lung.

Costul pe termen scurt cu problemele respiratorii (BRD) / vitel 42,15 USD.

Costul problemelor diareice /vitel 71,15 USD.

Urie et al. 2018, JDS

Dubrovsky, et al 2019
USDA, 2014

ENTERITELE LA VITEII DE LAPTE -DEFINITII

1. Ce este antibioretizenta?

Abilitatea bacteriilor si a altor organisme de a rezista la efectul substantelor antibiotice.

2. Ce este antibioticul?

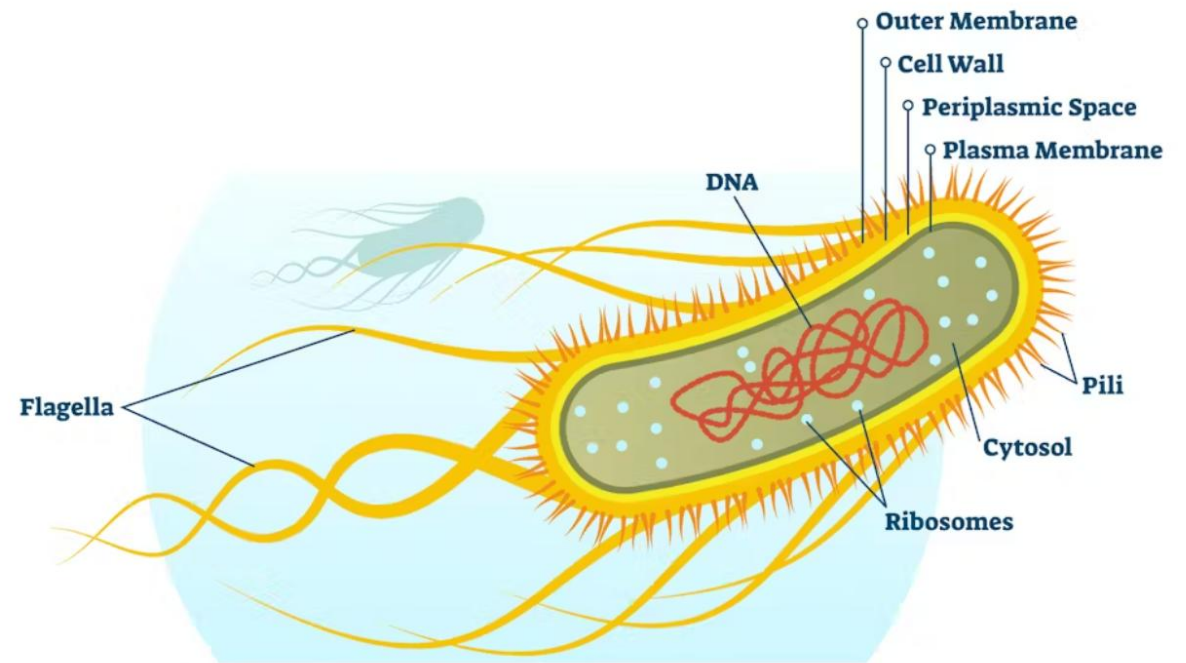
Medicamente utilizate pentru tratarea infectiilor bacteriene

- 6 grupuri mari
- 2 moduri de actiune:
ucid bacteriocid sau inhiba cresterea (bacteriostatic)

3. Ce este o bacterie?

Celula vie, in mare parte unicelulara,
Procariota,

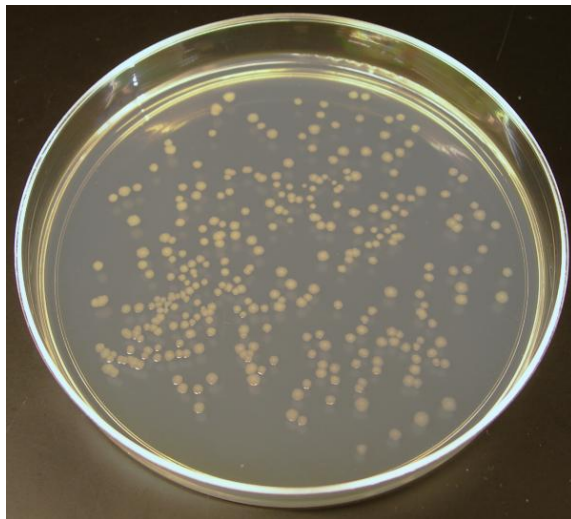
Cu material genetic ce se poate replica:
Genom circular si plasmide,
Traieste in toate tipurile de mediu.



<https://theconversation.com/e-coli.....>

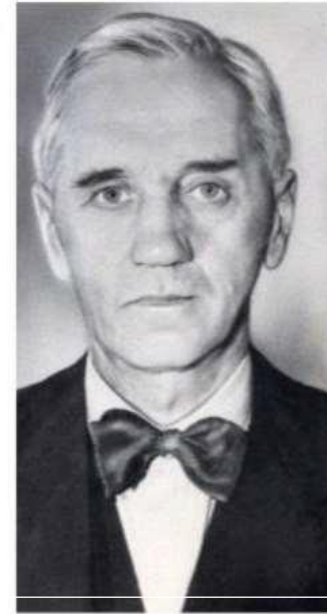
ENTERITELE LA VITEII DE LAPTE - BACTERIILE

- Bacteriile lucreaza in colonii.
- Evolutia selecteaza indivizii ce transfera mai multe copii ale genelor lor.
- Antibio rezistenta se “imprima” in gene, deci se transmite genetic la noua generatie.
- Oameni: 20-30 ani o generatie
- Bacteriile: 20min (E.coli) -10ore
- 1 generatie umana = 9125 generatii bacteriene



ENTERITELE LA VITEII DE LAPTE -ANTIBIOTICELE

- Cunoscut ca primul antibiotic utilizat : Penicilina (Fleming 1928, Florey 1940 , premiul Nobel 1945)
- Fleming 1945: “Publicul o va cere, apoi o era a abuzului va urma...”



Alexander Fleming
(1881 – 1955)



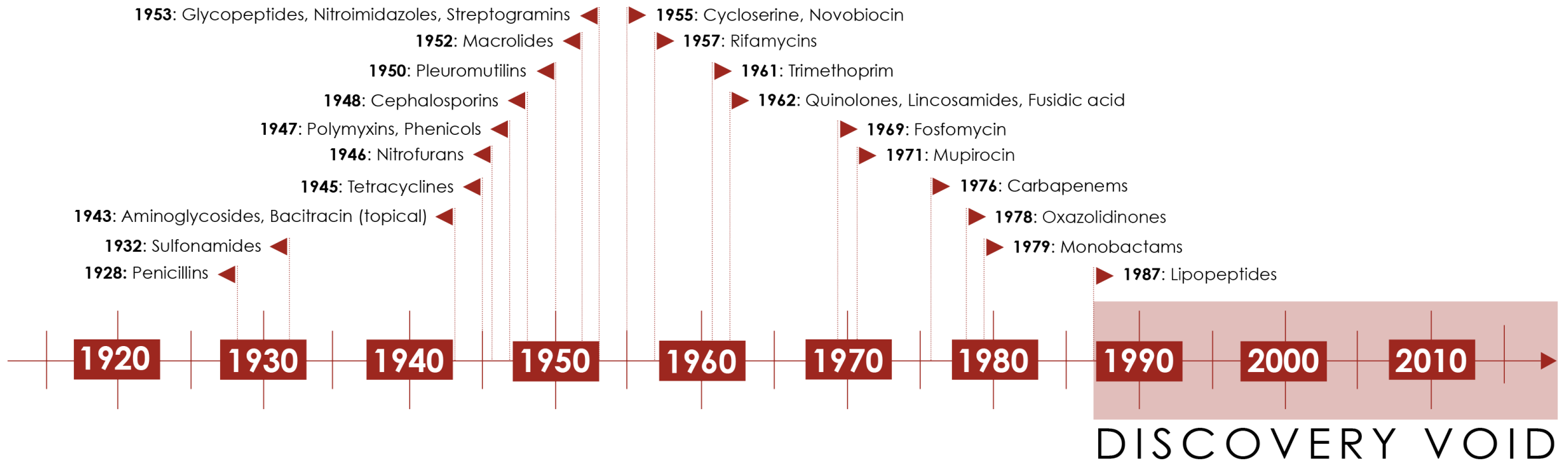
Howard Walter Florey
(1898 – 1968)



Ernst Boris Chain
(1906 – 1979)

ENTERITELE LA VITEII DE LAPTE - MORTALITATE

Care va fii prima cauza a mortalitatii in 2050? (AMR)



© ReAct Group 2015

<https://www.reactgroup.org/>

ENTERITELE LA VITEII DE LAPTE – STRATEGII?

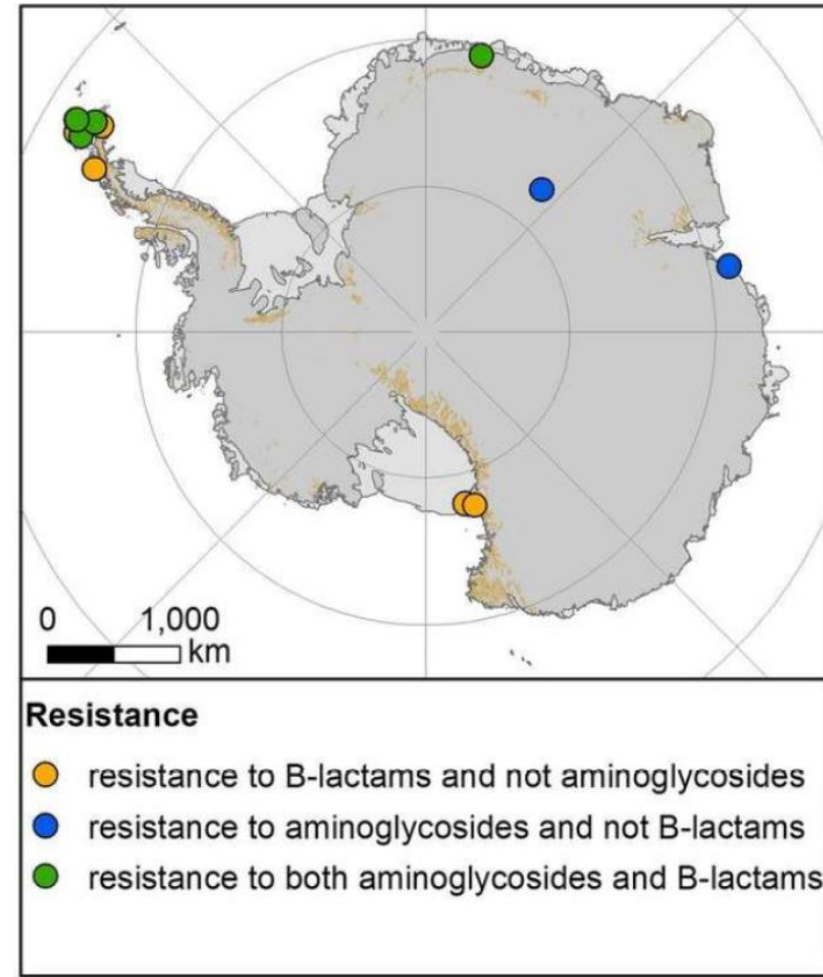
Strategie

Genetica ireversibila:

Genele nu pot fii sterse sau uitate,
Genele antibiotic - rezistente se gasesc peste tot.

Utilizarea necorespunzatoare a antibioticelor “ s gaseste” peste tot:

- doza necorespunzatoare
- supradoza
- timpul de administrare scurtat
- utilizate pe bacterii cunoscute a fii rezistente(antibiograma?)



Hwengwere, K., Paramel Nair, H., Hughes, K.A. et al. Antimicrobial resistance in Antarctica: is it still a pristine environment?. *Microbiome* 10, 71 (2022).

ENTERITELE LA VITEII DE LAPTE – SCHIMBAM STRATEGIA

1. Utilizarea protocoalelor de prevenire (profilactic)

- Vaccinarea
- Practici bune zootehnice (conditii de crestere, situatia bolilor, biosecuritate)
- Teste de diagnosticare(rapide si /sau laborator)
- Stimularea imunitatii in mod natural(nutritie de precizie)

2. Solutii alternative de tratament

- Virusi bacteriofagi
- Extracte din plante si uleiuri esentiale cu rol bacteriostatic si bactericid
- Prebiotice, probiotice, postbiotice: Bacillus spp. si Lactobacillus spp. , Saccharomyces spp. , Cyberlindnera jadinii,etc

ENTERITELE LA VITEII DE LAPTE- STUDIU DE CAZ

HAPPY COW = HAPPY CALF

IDEAL:

- a. Fara afectiuni digestive
- b. Fara afectiuni respiratorii
- c. Vioi, energici
- d. Cu SMZ > 1kg

ESTE OARE POSIBIL?



ESTE OARE POSIBIL?

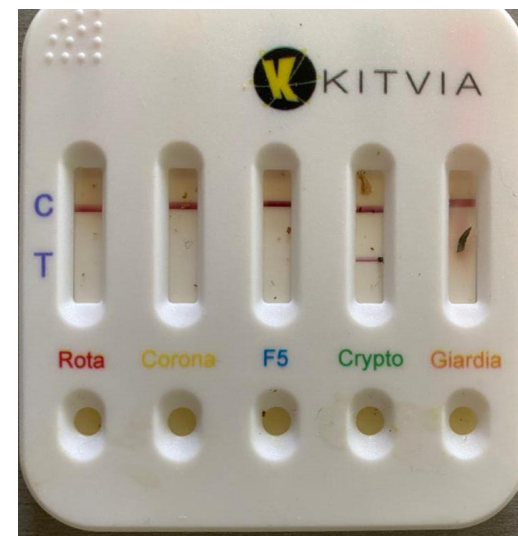


CUM? METODE SI PRACTICI?

1. **ANTIBIOTIC** “preventiv” imediat dupa colostru: Penicilina, Oxitetraciclina, etc.
2. **DRAXIN**
3. **ANTIVIRALE**

SAU

1. VACCINARE NEONATALA
2. DEPARAZITARE
3. VACCINARE ANAEROBIOZA
4. VACCINARE IBR/BVD
5. VACCINARE BOVIPAST
6. PROTOCOALE INTERDISCIPLINARE:
 - Asternut probiotic
 - Lapte/ CMR + postbiotic
 - Prebiotice, furaje Mustli, furaj granulat complet



ENTERITELE SUB CONTROL - STUDIU DE CAZ

1. MANOPERE SIMPLE SI REDUSE (forta de munca)
2. MORBIDITATE SCAZUTA : 1 caz la 106 fatari vs tratament in masa
3. MORTALITATE SCAZUTA: 0,6% vs 2,8%
4. IMUNITATE RIDICATA : enterocyte juninci si vaci
5. REDUCEREA C.I.
6. R.O.I



ENTERITELE SUB CONTROL – ALT STUDIU DE CAZ

2017

NU vaccinare neonatala

NU vaccinare IBR, BVD

NU nutritive de precizie

NU prebiotic asternut

NU postbiotic in lapte

Cheltuieli cu antibiotic 9% din total ferma

Morbiditate 8%

Mortalitate 3%

2020

Program biosecuritate

Conditii de crestere imbunatatite

Hranire: prebiotic, postbiotic

Vaccinare IBR, BVD, ROTAVEC, BOVIPAST

Cheltuielile cu antibiotic 3,9% din total ferma

Morbiditate 1%

Mortalitate 0%



SURSE:

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Notite personale Ovidiu Birgu

Notite personale Vasiliu Bogdan

Lallemand Animal Nutrition

Alexis Nalovici, MG2MIX

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