CONTENTS

VETERINARY MEDICINE

CH	IΔ	P٦	ΓF	R	1
CI.	ᇄ	ГΙ		ı١	_1

TOXICITY STUDY OF PEGYLATED ENROFLOXACIN IN ANIMAL ORGANISM (Vlizlo Vasyl, Zelenina Oksana,	
Kozak Mariya)	2
Characteristics of the antimicrobial drug enrofloxacin and its compounds	
Study on toxicity of PEGylated enrofloxacin	
CHAPTER 2	
THERMOTOLERANCE OF RUMINANTS (Danchuk Oleksii,	
Zaruba Kostiantyn, Antonik Iryna)	
 Concept of thermotolerance in living nature Heat stress in ruminants and its features 	
CHAPTER 3	
THE EFFECT OF DIFFERENT DOSES OF NANOTECHNOLOGICAL CITRATE GE AND PROBIOTIC LACTOBACILLUS CASEI B-7280 ON LIPID COMPOSITION AND PEROXIDATION PRODUCTS IN THE BODY TISSUES OF BEES AND THEIR VIABILITY (Kovalchuk Iryna, Khymynets Tetiana)	55
1. The influence of probiotic drugs on the development of bee families 2. Effect of different doses of Ge citrate and probiotic	
Lactobacillus casei B-7280 on the body of bees	58
3. Viability of bees under conditions of feeding with Ge citrate	
and probiotic Lactobacillus casei B-7280	65
CHAPTER 4	
FORENSIC VETERINARY EXAMINATION OF TRAUMATIC INJURIES IN ANIMALS CAUSED BY AIRGUNS AND FIREARM PATTERNS, SEVERITY AND CONSEQUENCES	
(Lemishevskyi Volodymyr)	76
1. Pneumatic and firearms: mechanisms of injury and consequences	70
for animals	
2. I OTOHOTO VOLOTIHAI V CAAHIIHAUUHO. CASC ahai volo	. 02

CHAPTER 5

NATURAL RESISTANCE OF FARROWING SOWS AND ITS CORRECTION (Masiuk Dmytro,	
Kokariev Andrii, Nedzvetsky Victor)	.101
1. Morpho-biochemical indicators of blood of sows in the second half	
of gestation and their correction	.103
2. Indicators of cellular immunity of sows in the second half	
of gestation and their correction	.110
3. Indicators of humoral immunity of the second half	
of the growing season and their correction	.129
CHAPTER 6	
IMMUNE SYSTEM DEVELOPMENT IN NEONATAL PIGLETS	
(Masiuk Dmytro, Nedzvetsky Victor, Kokariev Andrii)	
1. Haematological and biochemical characteristics blood	
2. Cellular immunity	. 154
3. Research on the formation of the humoral branch of immunity	150
in the blood of piglets	.178
CHAPTER 7	
DETERMINATION OF THE IMMUNOLOGICAL STATUS	
OF ANIMALS DURING THE PERIOD	40-
OF FETAL DEVELOPMENT (Prosyanyi Sergiy, Horiuk Yulia)	.195
1. The problem's prerequisites emergence	107
and the problem's formulation	
Research material and methodology Research results and their discussion	
	. 201
CHAPTER 8	
DISTRIBUTION, ETIOLOGY, AND TREATMENT OF CALVES	
WITH ABOMASOENTERITIS (Slivinska Lyubov, Zinko Halyna,	210
Shcherbatyi Andrii)	. 210
of abomasoenteritis in calves	220
2. Blood parameters in calves with abomasoenteritis	
3. Indicators of lipid and protein peroxidation and the state	. 224
of the antioxidant defense system in calves with abomasoenteritis	227
4. Indicators of innate resistance in calves with abomasoenteritis	
5. Indicators of immune protection in calves with abomasoenteritis	
6. Pathological and anatomical changes in abomasoenteritis in calves.	
Pathomorphological research methods	.236

CHAPTER 9

Material and methods of research Results of the research	
4. Analysis of the results of experimental studies	
CHAPTER 13	
PREVALENCE AND CLINICAL SIGN OF MYOCARDIAL DYSTROPHY IN HIGH-YIELD COWS (Sharandak Pavlo,	
Suslova Natalia, Bilnytska Sofia)	427
1. Clinical and functional state of the cardiovascular system in clinically healthy high-yield cows	428
2. Prevalence and main causes of myocardial dystrophy	
in high-yield cows	440
3. Clinical and functional diagnosis of myocardial dystrophy in high-yield cows	440
4. Electrocardiogram parameters in high-yielding cows	449
with myocardial dystrophy	453
CHAPTER 14	
ETIOLOGY PANCREATITIS AMONG CATS (Sharandak Pavl Suslova Natalia, Rodina Anna)	
1. Inflammation of pancreas of cats.	
2. Reason of pancreatitis among cats	
VETERINARY HYGIENE	
CHAPTER 15	
IMPROVEMENT OF METHODS OF DETECTION OF ANTIBIOTICS IN LIVESTOCK PRODUCTS	
(Iakubchak Olga, Korniyenko Valentyna, Midyk Svitlana)	
2. Evaluation of the suitability of the method for the determination	4/8
of enrofloxacin in poultry muscles, blood and droppings by liquid	
chromatography using a mass spectrometric detector	481
3. Analysis of the monitoring of the residual amount of antibacterial	402
substances in Ukraine for 2013–2019	482
and slaughter parameters of poultry	483

TECHNOLOGY OF PRODUCTION

CHAPTER 16

MODERN ANIMAL BREEDING TECHNOLOGIES AND MOLECULAR GENETIC MARKERS (Balatsky Viktor,	
Saienko Artem, Peka Mykyta)	. 496
1. Marker-associated and genomic selection	
2. Bioinformatic analysis	
3. Genotyping methods	
CHAPTER 17	
TECHNOLOGICAL SOLUTIONS FOR THE EFFICIENT PRODUCTION OF SHEEP PRODUCTS IN THE CONDITIONS OF THE SOUTH-EASTERN REGION OF UKRAINE	
(Vinyukov Oleksandr, Vinyukov Artem, Uvarov Mykola)	
 Interbreed crossings for the production of precocious young sheep Optimum ration of feeding young sheep with the use of biological 	
preparation Aidar	. 523
3. The influence of the length of time lambs stay with their ewes	
on their growth and development	
4. Feeding and maintenance of sheep in the winter period	
5. Summer feeding and maintenance of sheep	. 530
CHAPTER 18	
CATTLE PRODUCTIVITY, PRODUCT QUALITY AND SAFETY DUE TO THE USE OF HIGH-PROTEIN FEED IN THE DIET (Savchuk Ivan, Kovalova Svitlana,	
Koberniuk Vera)	. 535
1. Productive and slaughter qualities of young cattle	. 537
2. Accumulation of ¹³⁷ Cs, Pb, Cd in products due to the use	
of various high-protein feeds in the diet of cattle	. 542
CHAPTER 19	
INCREASING THE EFFICIENCY OF BEEF PRODUCTION THROUGH THE USE OF DRUGS OF MICROBIOLOGICAL ORIGIN IN DIETS (Farafonov Svyatoslav, Yaremko Olha,	
Mylostyva Daria)	. 552
1. Assessment of factors affecting the adaptive performance	
of young Volyn beef breed during critical periods of maintenance	. 554
with the aim of additional correction of their diets with probiotics	. 559

2.1. Morphological and biochemical parameters of the blood
of calves of the Volyn beef breed when probiotics are used561
2.2. Indicators of natural resistance and immunological status
of the blood of young Volyn meat breed when using probiotics563
2.3. Indicators of growth of young animals when using probiotics566
2.4. Economic effectiveness of probiotics
CHAPTER 20
MONITORING OF SELECTION AND TECHNOLOGICAL
ELEMENTS OF PRODUCTION OF LIVESTOCK PRODUCTS
IN FARMS OF UKRAINE AND EUROPE (Shuliar Alina)574
1. The current state and prospects for the development
of the livestock industry in Ukraine and Europe
2. Evaluation of selection and technological elements of the production of livestock products in the conditions
of «Agroprodservice» PAE (Ukraine)
3. Evaluation of selection and technological elements
of the production of cattle breeding products in the conditions
of the farm «Milchhof Willen KG» (Germany)
4. Evaluation of selection and technological elements of the production
of pig products in the conditions of «FM PORK A/S» (Denmark)
5. Evaluation of selection and technological elements of production
of dairy products in the conditions of «Vertokyivka» LLC (Ukraine) 592
6. Evaluation of selection and technological elements of production
of poultry products in the conditions of the agricultural holding
«Agrikamponit» (Finland)
CHAPTER 21
THE IMPORTANCE OF THE POULTRY INDUSTRY
FOR FOOD SECURITY AND THE EVALUATION
OF THE SELECTION AND TECHNOLOGICAL ELEMENTS
OF THE PRODUCTION OF PRODUCTS OF THE INDUSTRY
IN THE CONDITIONS OF POULTRY ENTERPRISES
OF UKRAINE (Shuliar Alona)606
1. The current state and prospects for the development
of the poultry industry in Ukraine and the world
2. Evaluation of selection and technological aspects of production
of poultry products in the conditions of «Myasov» LLC
3. Evaluation of selection and technological aspects of production
of poultry products in the conditions of «Poultry Factory
«Korobivskyi» LLC625

ECOLOGY AND ENVIRONMENTAL PROTECTION Chapter 22

BIOCHEMICAL FEATURES OF THE EFFECT OF S-ESTERS	
OF THIOSULFONIC ACIDS ON THE LINKS OF PROTEIN	
METABOLISM IN THE ANIMAL BODY (Iskra Ruslana,	
Liubas Nataliia, Sushko Olha)	640
1. Scheme and methods of using thiosulfonic acid esters	
in animal studies	642
2. The effect of esters of sulfonic acids on the content	
of proteins and their fractions	643
3. The effect of esters of sulfonic acids	
on certain biochemical indicators of blood plasma of rats	646
CHAPTER 23	
CHAPTER 25	
GERMANIUM IN THE NATURAL ENVIRONMENT	
AND TROUBLE CITAIN (C.L. 11 C-41 D.4 L. L. OL-	
AND TROPHIC CHAIN (Sobolieva Svitlana, Petryshak Olga,	
AND TROPHIC CHAIN (Sobolieva Svitiana, Petrysnak Olga, Petryshak Roman)	652
Petryshak Roman)	653
Petryshak Roman)	653
Petryshak Roman)	653 654
Petryshak Roman)	653 654 655
Petryshak Roman)	653 654 655 658 660
Petryshak Roman)	653 654 655 658 660
Petryshak Roman)	653 654 655 658 660 663
Petryshak Roman)	653 654 655 658 660 663
Petryshak Roman)	653 654 655 658 660 663