

# **Complex final examination questions**

## **Agricultural Engineer Bachelor Course**

### **1. Beef and dairy cattle fattening practices**

- the breeding conditions of fattening cattle production
- various fattening methods (nutrition)
- the technical conditions of fattening cattle production
- the health-care of fattening cattle, prevention
- factors influencing the profitability of cattle breeding
- animal protection regulations for transport and slaughter

### **2. Dairy cattle husbandry**

- breeding and genetic background
- feeding technology
- the technical conditions of milk production (buildings, equipment, milking methods)
- animal health and hygienic requirements
- factors influencing the productivity of the dairy farm, the regulations of the market
- environment protection with regard to dairy cattle farming

### **3. Beef cattle husbandry**

- the nutrition of beef cattle and calves, rearing heifers until calving
- technical solutions of buildings and equipment, keeping technology without buildings
- animal health and hygienic requirements
- the work organisation and economy of beef cattle production, the regulations of the market
- the role of organic farming

### **4. The husbandry and reproduction technology of sows and boars**

- housing and nutrition of breeding pigs
- reproduction technology of pigs
- the technical conditions and animal protection regulations of breeding pigs
- the organisation and the economy of pig reproduction

### **5. The biological, technical, health and economy issues of pig breeding**

- the market forms of pig production
- housing and nutrition of fattening pigs
- the hygiene of fattening pigs
- environmental protection and animal protection in pig production
- factors influencing the productivity of pig fattening, the regulations of the market

### **6. Sheep production and breeding**

- biological basis: meat type sheep and sheep for reproduction
- describing the Hungarian Merino sheep breed, the possibilities to increase its meat and reproduction productivity
- sheep reproduction: flushing, mating methods, artificial insemination,
- the genetic, nutrition and housing conditions and economic effects of frequent lambing
- the genetic and nutrition conditions of twin-lambing
- the technical requirements of shearing and milking of ewes

## **7. Lamb keeping and lamb rearing**

- the keeping, nutrition and animal health conditions of lamb rearing
- the economic and animal health conditions of weaning lambs of different ages
- the rearing technology of suckling lamb and express frying lamb
- the animal health background and economic evaluation of lamb rearing

## **8. Factors influencing the productivity of broiler chicken production, the conditions and technology of housing broiler chicken**

- the type-categories of broiler chicken, the description and main characteristics of chicken suitable for production,
- the biological basis of broiler chicken production,
- the breeding background of broiler chicken production,
- the technical conditions of broiler chicken production,
- the animal health conditions and background of broiler chicken production,
- the housing and nutrition technology of broiler chicken production,
- the economy of broiler chicken production

## **9. The methods and technology of broiler duck production**

- the characteristics of the domestic duck, and the consequence with regard to their production
- biological basis in duck production (types, hybrids)
- the methods of broiler duck breeding
- the technical conditions of broiler duck production (buildings and equipment)
- the technology of broiler duck production – pre-rearing and post-rearing period
- the nutrition of broiler ducks
- the animal production background of broiler duck breeding
- the economic aspects of broiler duck production

## **10. Breeding stocks in the chicken sector**

- the relationships of breeding and reproduction in the purebred and in the hybrid production
- the definition of the breeding stocks and their classification
- the biological basis of egg production
- the technical conditions of keeping laying-hens
- the production technology of breeding-egg producing stocks
- the animal health care and hygiene conditions of breeding-egg producing stocks
- the factors having influence on hatching success
- the economic conditions of breeding stock production
- the effect of changes in concerning animal and environmental protection regulations on production

## **11. Keeping egg producing stocks (egg as food)**

- the general description of laying hen hybrids
- keeping systems in the laying hen sector
- the keeping technology of table egg producer stocks
- the nutrition of table egg producer stocks
- egg collecting and handling
- the alternative systems of laying hen keeping and animal protection issues
- the characteristics of an improved cage
- the economy of table egg producer stock production

## **12. Wheat production**

- economic significance, quality
- ecological needs
- crop rotation, nutrient supply
- land cultivation, sowing
- plant care, plant protection
- harvest, storage
- mechanisation of wheat harvest
- the economy of production, marketing tools

## **13. Corn (maize) production**

- economic significance, quality
- ecological needs
- crop rotation, nutrient supply
- land cultivation, sowing
- plant care, plant protection
- irrigation machines
- harvest, storage
- the economy of production

## **14. Potato production**

- economic significance, quality
- ecological needs
- traditional and early potato production technology
- crop rotation, nutrient supply
- land cultivation, sowing
- plant care, plant protection
- harvest, storage
- potato harvest machines
- the economy of production

## **15. Oilseed rape production**

- economic significance, quality
- ecological needs
- crop rotation, nutrient supply
- land cultivation, sowing
- plant care, plant protection
- harvest, storage
- rape harvest machines
- the economy of production

## **16. Sunflower production**

- economic significance, quality
- ecological needs
- crop rotation, nutrient supply
- land cultivation, sowing
- plant care, plant protection
- harvest, storage
- sunflower harvest machines
- the economy of production

### **17. Alfalfa production**

- economic significance, quality
- ecological needs
- crop rotation, nutrient supply
- land cultivation, sowing
- plant care, plant protection
- harvest, storage
- alfalfa harvest machines
- the economy of production

### **18. Apple production**

- economic and nutritional significance
- ecological needs, production regions in Hungary
- rootstocks and cultivars
- pruning, tree forms
- land cultivation, nutrient supply, irrigation, plant protection
- harvest
- the economy of production

### **19. Peach production**

- economic and nutritional significance
- ecological needs, production regions in Hungary
- rootstocks and cultivars
- pruning, tree forms
- land cultivation, nutrient supply, irrigation, plant protection
- frost protection irrigation
- harvest
- the economy of production

### **20. Tomato production**

- economic and nutritional significance
- environmental needs
- outdoor production technology:
- reproduction by sowing, reproduction by transplanting,
- crop rotation, soil preparation, sowing, transplanting,
- nutrient supply, irrigation,
- plant care, plant protection
- forced tomato production
- harvesting
- mechanised harvesting
- marketing tools

### **21. Pepper (paprika) production**

- economic and nutritional significance (sweet pepper, red pepper/paprika)
- environmental needs
- outdoor production technology: reproduction by sowing, reproduction by transplanting,
- crop rotation, soil preparation, sowing, transplanting,
- nutrient supply, irrigation,
- plant care, plant protection
- forced paprika production
- drip irrigation
- harvesting

## **22. Common Agricultural Policy (CAP) in the European Union**

- the definition and the history of CAP
- the principles of CAP
- the finance of CAP
- the changes and reforms of CAP
- Hungarian regulation system between 2014 and 2020