

**HYGIENIC AND INNOVATIVE REQUIREMENTS DURING THE  
PERIOD OF REARING WEANED PIGLETS  
(ГІГІЄНІЧНО-ІННОВАЦІЙНІ ВИМОГИ В ПЕРІОД ВИРОЩУВАННЯ  
ВІДЛУЧЕНИХ ПОРОСЯТ)**

*У статті йдеться про вплив стресових факторів на стан здоров'я і продуктивність відлучених поросят та методи їх попередження.*

***Ключові слова:** відлучені поросята, стресові фактори, годівля, санітарні умови утримання.*

*This article discusses the influence of stressors on the health and productivity of weaned piglets and methods of their prevention.*

***Keywords:** weaned piglets, stressors, feeding, sanitary conditions of detention.*

The immediate post-weaning period is one of the most stressful phases in a pig's life, and during this period, piglets are usually exposed to environmental, social and psychological stressors which have direct or indirect effects on their health and overall growth performance [1]. Weaning piglets is a set of stressors that affect both piglets and sows. Usually piglets are weaned on the 60<sup>th</sup> day of lactation in one go. After weaning, stressors for them are: absence of sow, exclusion from breast milk, hunger, change in diet, increase in feeding rate, change in feeding technique, feed preparation technology, staff, nesting, regrouping of livestock, transfer of livestock to other premises and change of housing technology [2]. To minimize the adverse effects of weaning and their subsequent consequences, appropriate husbandry management strategies need to be taken to

maximize post-weaning performance [1].

Preparation of piglets for weaning begins at 5-7 days of age, accustomed to transfer to feeding a variety of feeds. Unaccustomed from an early age to eating food, piglets feel hungry after weaning, and therefore they are able to consume large amounts of food without having a physiological ability to digest it. As a result, they have a disorder of the digestive tract, which leads to loss of live weight and often even death. In order to avoid or reduce the harmful effects of stress on the body of piglets, it is necessary to leave the latter in the same machine after weaning without regrouping, combining and moving the nests and changing the housing. For 12 to 15 days, they should not change the composition of the diet, feeding regime and technology of preparation of feed for feeding.

After weaning the piglets need to pay much attention. During this period, they have high potential for growth, so they attach great importance to creating normal conditions for their feeding and maintenance. Special mixtures are used for feeding weaned piglets, which include various feeds of plant and animal origin [2]. Stress can worsen the appetite of piglets. This will reduce feed intake. Low feed intake is a major risk factor for impaired structure and function, which negatively affect gut morphology and barrier function. Hence, the key goal in swine husbandry practice is to maximize feed intake in newly weaned piglets. Efforts to achieve this goal must start in farrowing room with managing feed intake in the lactating sow. Sows nursing newborns require essentially full feeding during lactation, therefore, supplementing the sow's diet during late gestation and lactation periods may improve performance of the sow and her piglets [3].

The use of creep feeding has a positive effect on the growth of piglets because it increases weaning weight of piglets and leads to a smooth transition period for the piglets from sow's milk to the dry feed. Previous studies demonstrated that creep feed intake has a positive effect on post-weaning feed intake and it is assumed that nursery piglets offered creep feed prompts them to get adapted to solid feed. The management strategies for creep feeding in piglets include offering fresh and palatable creep feed at less than 2 weeks of age, frequent

feeding, feed should be accessible, increasing feeder space, and supplementation of feed additives in creep feed. Collectively, creep feeding is advantageous in improving gut health in weaned piglets, and thus promotes growth performance in piglets [1].

Premises for rearing piglets must be special. They must be able to maintain the special climate required for newly weaned vulnerable piglets. The temperature for weaned piglets should be +30°C. This requires underfloor heating or some other solution for additional heating (for example, insulating mats and infrared lamps, etc.) [4]. Restricted space allowance is one of the stressors for piglets at the time of weaning which results in crowding stress and as a result negatively affects feed intake and growth performance. Crowding stress also results increase in abnormal behavior and levels of aggression, which increases non-growth energy expenditure. The current recommended space allowance for weaned pig is at least 0.34 m<sup>2</sup> per pig in slatted pens, however, in antibiotic-free feeding regimen, more space allowance might be required [1].

In commercial swine production, clean and hygienic sanitation play an important role in growth performance of healthy pigs. Degradation of sanitary conditions could provoke moderate inflammation in weaned piglets. The housing for weaned piglets must be sterile clean. After disinfection, the walls, floor and equipment must be dried. This is especially important in rooms with concrete floors and grilles. This is usually difficult to achieve using only a heating system: additional diesel heaters will be needed. If the floor is not dry enough, as soon as the piglets come, it will become wet, because the piglets heat the concrete with their bodies, and the moisture heated in the concrete will collect on the surface. A moist and warm environment is conducive to the development of bacteria [4]. Maintaining high standards of cleanliness in the nursery is critical for optimal performance of piglets partly because of its direct or indirect effects on gut health and function.

Weaned piglets and adult pigs are reared according to all-in/all-out system. The principle behind is that between batches of pigs, the location is completely

cleared, disinfected and rested to ensure the cycle of infection is broken and premises do not themselves serve as a reservoir for infective material. The key reasons for using all-in/all-out system are to minimize exposure levels to pathogenic organisms in the pig farm, to avoid the spread of diseases from adult pigs to younger pigs, and to increase feed efficiency and rate of gain by maintaining a high health status [1].

Successful weaning requires a comprehensive approach, knowledge of biosafety, physiology and behavior of piglets. Analyzing the situation on the farm, it is possible to develop a system that will successfully pass a critical period of weaning piglets and achieve good economic results [4].

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### **НОРМАТИВНО-ПРАВОВЕ ЗАБЕЗПЕЧЕННЯ ЯКОСТІ ОСВІТИ АВСТРІЇ**

*В статті розглядається нормативно-правове забезпечення якості освіти Австрії. Наголошено, що для усіх рівнів освіти розроблені та*