RESILIENCE IN SOWS – DOES IT EXIST?

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Breeding for high performance is generally associated with an increasing sensitivity of the animals to harmful environmental factors. These include, among other things, herd management, the climate, feeding, husbandry, but also pathogen loads of all kinds and diseases. High-performance sows sometimes react differently to this. In the case of the animals that react sensitively, this very often leads to a loss of performance, illnesses and to early departure from the herd. This has a negative effect on economic efficiency and above all represents an important animal welfare problem. It directly affects the ethical justification for us humans to breed and keep high-performance animals. This is particularly true for the very fertile sows in piglet production. This problem cannot be viewed in a single-causal way, because the production diseases, causes of reduced performance and early departures are multifactorial. The closely interrelated exogenous and endogenous factors play a role. The multitude of influencing variables, e.g. metabolism and fertility, interact via negative and positive feedback mechanisms. Thanks to the buffer capacity of the individual, there are often delayed reactions to the influencing factors. It is known that sows react very differently to individual influencing factors that have the same effect. This is where the term "resilience" comes in, which can be translated as "spring force" (cushioning). It represents the ability of the organism to maintain the initial state or to restore it in a short time after an external influence, e.g. a stress factor or an illness. The aim of this article is to bring this natural spring force into focus in high-performance sows. The question of which approaches are seen for early resilience diagnostics should be investigated. How is resilience expressed in high-performance sows, is it measurable and predictable and can the result be used in the breeding sense with a view to improved animal health with consequences for longevity?