

**„Dobrostan – kluczowy element nowoczesnej hodowli i zdrowia zwierząt”****Florian Leiber****WELFARE ASPECTS OF ANIMAL NUTRITION AND FEED DIVERSITY**

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Animal welfare is a foundational aspect of sustainable and ethical livestock farming. Central to this is the concept of species-appropriate nutrition and environmental enrichment, which supports the expression of natural behaviors, physiological health, and emotional well-being in animals. This presentation discusses how feed diversity and natural foraging opportunities contribute to animal welfare across different livestock species, and explores their implications for productivity, health, and ecological sustainability.

In poultry, an outdoor-run experiment compared the behavior and performance of dual-purpose hens (Coffee) and layer hybrids (Brown Nick) with access to organic feed and grass-clover pasture. Results showed that grazing is a deliberate, natural behavior for chickens. Dual-purpose chickens derived approximately 20% of their nutritional intake from pasture without a drop in performance, suggesting that less intensive feeding strategies may be viable for these genotypes. Conversely, layer hybrids showed lower grazing activity, and their laying performance may be compromised by lower-intensity diets.

For pigs, the role of diet structure in gastric health was highlighted. Studies indicate that including roughage such as grass silage significantly reduces gastric ulcers, particularly under stress conditions. This emphasizes the importance of dietary fiber and natural feeding behavior in swine welfare.

In ruminants, feed selection behavior is shaped by a complex interplay of nutritional needs, phytochemical content, and microbial activity in the rumen. Animals instinctively balance intake to regulate rumen fermentation, toxin load, and even parasite burden. Botanical and biochemical diversity in pastures—including herbs rich in tannins, essential oils, and other secondary plant compounds—modulates rumen function, reduces nitrogen and methane emissions, and enhances the nutritional value of animal products, such as increased omega-3 content in lamb meat.

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Altogether, the evidence supports a holistic approach to animal feeding that prioritizes diversity, natural behavior, and species-specific needs. Such practices not only improve animal welfare but also contribute to environmental sustainability and the production of healthier animal-derived foods. Embracing feed diversity and ecological farming practices represents a critical step toward more ethical and resilient livestock systems.