

ANALYSIS OF AGRICULTURAL CURRICULA IN SRI LANKAN STATE UNIVERSITIES: IDENTIFYING GAPS IN MODERN AGRICULTURAL TRENDS

J.A.K.A. Jayasinghe and N.M.K.C. Premarathne

Department of Agricultural Systems, Faculty of Agriculture, Rajarata University of Sri Lanka, Anuradhapura, Sri Lanka.

The alignment of agricultural higher education curricula with contemporary agricultural industry trends is crucial for preparing Sri Lankan agricultural graduates to meet the evolving demands and avoid skill mismatches. This study investigated the course capsules of the teaching curricula of agricultural faculties of Sri Lankan state universities by employing a qualitative research design. A systematic review of 100 academic papers was used to identify the key global agricultural trends. A thematic analysis was conducted using NVivo software to determine the presence or absence of identified key global agricultural trends in the contents of the online available course capsules of teaching curricula from eight agricultural faculties. Additionally, 12 key informant interviews were conducted with academic master trainers, specializing in 21st-century skills integrating at the Faculty of Agriculture, Rajarata University of Sri Lanka, to triangulate the data. The analysis revealed that trends such as climate-smart agriculture, entrepreneurship, precision agriculture, and sustainable practices are well represented across all faculties. Areas such as agricultural robotics applications, alternative feed sources in livestock production, minichromosomal technology, alternative proteins, clean labeling in food production, and bio-stimulants are absent across all faculties. Technologies such as agricultural drone applications, blockchain applications in the agricultural value chain, regenerative agriculture, and applications of artificial intelligence in agriculture have very limited coverage in the curricula of Sri Lankan agricultural faculties. These findings underscored the urgent need for strategic policy interventions to regularly review and update curricula, ensuring they are responsive to the demands of modern agricultural industries and preventing potential skill mismatches among graduates.

Keywords: Agricultural curricular, Agricultural higher education, Agricultural trends, Twenty-first-century skills in agriculture