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# Systems thinking and practices in the education of agriculturalists

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## Abstract

A systems approach has been taken to a review of agricultural education programmes and as the essential theme of resultant curricula at Hawkesbury Agricultural College in Australia. The systems thinking and practices which have guided, and been shaped by, the innovations are outlined, and the rationale and framework of the major programme are described. The subsequent emphasis has been placed on effective learning for agricultural managers and their technologist advisors. It is argued that problem solving and learning are essentially the same psychological processes and that taking a systems approach to investigating problem situations provides a more useful paradigm for learning about agriculture than reductionist, discipline-based approaches. Experiential learning and autonomy in learning are seen as consistent with this and are basic features of the programmes. A conceptual framework for problem solving that incorporates soft and hard systems and scientific reductionist methodologies has been developed. A

contingency approach to situation improving is emerging as a less restrictive and more realistic alternative to a normative approach to problem solving.



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