PERSPECTIVE

ETHICS IN AGRICULTURE: WHERE ARE WE AND WHERE SHOULD WE BE GOING?

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Abstract

Agriculture's dominant focus is feeding the human population. From an ethical perspective, this is clearly very positive. Still, it does not absolve agriculture from critical and ethical examination of the totality of agriculture's effects. To earn the public's ongoing support, agriculture must be*gin regularly* examine its full range of effects and be sure they align with the highest ethical values. Agriculture's *productive* record is enviable in the science and technology associated with its primary ethical concern, but we need to do more to address the broader ethical issues that are the public's increasing concern. The entire agricultural community needs to become engaged in the discussion.

The classroom offers an effective starting place*, but* curricular offerings (focusing on ethical principles, agricultural applications, and expectations of agricultural professionals) are rarely available at public universities. *E*thics study should become a key component of agricultural education.

Keywords: Agriculture, classes, ethics, food system, survey, values

Introduction

Agriculture, the essential human activity, is the most widespread human interaction with the environment and is central to human health and well being. We now live in a post-industrial information age. But no one will ever live in a post-agricultural world. Therefore, agriculture's sustainability and productive capability must be assured. Appropriately, the dominant focus of those involved in agriculture is how to achieve the moral obligation and challenge of feeding the human population, *projected to grow* to 10-12 billion by 2100.

However, many people throughout the world, in developed and developing countries, *are* concern*ed* about agriculture and our food system that have ethical dimensions beyond the central need to feed humanity.

Some of the most important concerns are:

- availability and use of surface and ground water,
- soil erosion,
- water pollution from excess fertilizer,
- loss of small farms and rural communities,
- pesticides in soil and food,
- the rise of corporate farming,
- the power and lack of transparency of agri-businesses and corporate food processors,
- nutritional value of foods provided to consumers by the food system,
- emission of greenhouse gases,
- cruelty to animals,
- known and unknown effects of biotechnology/GMOs,
- loss of crop genetic diversity,
- pollution from confined animal feeding operations, and
- exploitation and inhumane treatment of farm labour.

Figure 1 An image of vast scale monoculture farming reliant on herbicides and pesticides (Photo Credit: UCL, London, U.K.)[1]

All *in* agriculture *are* involved in ethical questions. What should be done? How should it be done? *Who must do it?* What stakeholders should be considered? The way agriculture is practised, development projects are chosen and conducted, and the kind of research and teaching done involves scientific and ethical values and a view of a future we expect, desire, or fear. Because agriculture is a critically essential human activity, it must rest on a firm ethical foundation.

From an ethical perspective, feeding the growing world population is clearly a very good thing. Still, it does not absolve the agricultural community from critical, ethical examination of the totality of agriculture's effects. We are obligated to consider broad ethical concerns and to examine the ethical values that guide us.

Largely because agriculture has succeeded in providing abundant food, the agricultural enterprise is generally viewed positively by the public. Ongoing public support is critical for the future.

To earn it, the public must trust the agricultural community to vigilantly examine the full range of the human and environmental effects mentioned above and to be taking actions assuring they align with the highest ethical values.

The future demands a new vision that supplies the energy and intellectual effort to create agricultural and ecological sustainability and moral certainty.

Scientific and technological *achievements* have been and will continue to be necessary to increase food production. But they are not sufficient to address the public's concerns.

Healthcare provides an instructive example. The healthcare system employs scientific understanding and advanced technology to improve human health and cure disease. Yet, the public expects healthcare professionals to embrace ethical standards that go far beyond the science and technology of their central moral focus. Our view is that healthcare professionals are acutely aware of these expectations and their obligation to meet them.

The agricultural community has an enviable record in science and technology associated with producing food. However, *more must be done* to address the broader ethical issues of concern to the public. What can our land grant and other public universities do within our missions of education, research, and outreach?

We in agriculture are not the only segments of land grant universities that face the need to address broader ethical issues – particularly as the public becomes more attentive to the ethical standards and behaviour of many once-trusted institutions and organizations. Our colleagues in business, engineering, and human and veterinary medicine also are affected by this reality. They have responded by integrating ethical considerations into their disciplines. Agriculture lags behind, and change is necessary across all aspects of our mission.

[1] Image from UCL Nature & Conservation Society, London, U.K. (https://studentsunionucl.org/).

We cannot simply say: we are feeding the world, and that is enough. There is much to be done, and progress is not likely to be easy or rapid. But we need not be overwhelmed. Our research (Zimdahl, 2000, Zimdahl and Holtzer, 2016) suggests a place where we can make progress – the classroom.

Figure 2 The Agriculture Classroom is critical to discussing ethical issues in Agriculture (Image Credit: Colorado State University [2]

While curricula in business, engineering, and veterinary medicine (for example) typically include course work in professional and discipline-related ethics, our research on the prevalence of courses in agricultural ethics shows that similar course work (focusing on general ethical principles, applications of these principles to agricultural issues, and ethical expectations of agricultural professionals) is available at only a small minority of land grant and other public universities with agricultural offerings.

Our findings indicate that for the 73 institutions studied, such course offerings declined from 15 to 10 from 1999 to 2013. Since our 2016 publication, the Colorado State university course is no longer taught - thus, the total is now nine.

While we did not collect demographic information on students in these courses, we suspect from our own experience that the courses attract students widely from across their universities, but relatively few agriculture undergraduates participate.

We suggest this is because the College of Agriculture faculty who determine curricula and advise undergraduates do not regard studying ethics, and the ethical values demonstrated in agriculture as essential preparation for agricultural professionals.

Teaching a successful course in agricultural ethics requires commitments of faculty time and other resources. Unfortunately, there are few faculty members with both broad expertise in agricultural issues and in ethical theory.

In our experience, a good solution is a team approach with one or more participants from philosophy and agriculture who have some background in the complementary area. Critically important for the team is respect for the validity of the other members' perspectives and enthusiasm for learning about them.

One way for agriculturalists to gain knowledge about applied ethics is to participate in short courses. If workshops and short courses specifically targeting ethics applied to agriculture are not available, more broadly focused bioethics programs may be useful.

An essential ingredient for developing a successful agricultural ethics course is leadership at the faculty and administrative level.

Offering more courses in agricultural ethics and encouraging students to enrol will not alone quickly increase the overall emphasis on ethical considerations within the agricultural community. But that step will be an essential recognition of the need for agriculture to address its ethical dimensions and for the entire agricultural community to engage in the discussion. We urge taking that step.

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References

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[2] Image from Colorado State University (**https://economics.colostate.edu/wp-content/uploads/sites/7/2021/02/05032_00087.jpg**).