



Science
Societies

Putting agricultural ethics into practice

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Photo courtesy of Adobe Stock/Acronym.



Farmers are often rewarded for what they produce, not necessarily for the environmental benefits they provide. Learn why some experts believe solving agriculture's sustainability challenges requires more than new practices and technologies. It also requires rethinking the values behind everyday agronomic decisions.

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Many farmers are passionate about stewardship of the land. But they're paid by the bushel, pound, or other unit of production. How do we fix that disconnect?

That question is at the heart of [a recent article](#) by Kate A. Congreves published in the journal *npj Sustainable Agriculture*. Congreves, a professor in the Department of Plant Sciences at the University of Saskatchewan, Saskatoon, SK, Canada, argues that agriculture needs more than new technologies and best management practices to solve sustainability problems. It also needs a clearer ethical foundation.

Congreves asks agricultural professionals to examine the values underneath the industry's decisions. What counts as "good" agriculture? Is it only high yield and efficiency, or should it also include care for soil, water, plants, animals, rural

communities, future generations, and the ecological processes that make farming possible?

She is not suggesting that CCAs need to become philosophers. Simply becoming more aware of the assumptions, values, and tradeoffs already embedded in everyday agronomic decisions can be really helpful.

Why bring philosophy into agriculture?

Congreves's article starts with a broad question: [Why has it been so difficult to create environmentally sustainable agricultural systems at a large scale?](#)

Agriculture has made major technological progress. Farmers and CCAs have access to better crop genetics, precision technologies, nutrient and pest management strategies, conservation practices, and soil health information. But soil degradation, nutrient losses, water quality problems, greenhouse gas emissions, and competition for land and water persist.

Why has it been so difficult to create environmentally sustainable agricultural systems at a large scale?

Congreves notes that agricultural sustainability is usually approached through a technical lens. Advisers and farmers may ask which practice, product, or policy, will increase agricultural sustainability.

Philosophy offers a new approach by helping people examine the assumptions that shape decisions, what we value and why, and how to balance competing values.

Congreves argues that this kind of thinking is useful because few people are trained in both agricultural science and philosophy.



An agricultural environmental ethic should simultaneously recognize the responsibility to produce food and other agricultural products and the responsibility to protect the ecosystems that make production possible. USDA Photo by Lance Cheung.

Environmental ethics has influenced conservation and environmental policy. But those ideas do not always fit agriculture well because farming requires direct interaction with soil, water, plants, animals, and landscapes. Farmers are producing food, feed, fiber, and fuel within the environment.

Agriculture is “*inextricably* a part of the environment and biosphere,” writes Congreves. “Agriculture is not separate from the environment—it is *within* it, as are we.”

So an agricultural environmental ethic should simultaneously recognize the responsibility to produce food and other agricultural products and the responsibility to protect the ecosystems that make production possible.

The limits of a production-first ethic

Congreves explains that a utilitarian ethic shapes much of modern agriculture, focusing on “the greatest common good for the greatest number of people.” This approach supports efficiency, productivity, food availability, economic value, and the moral goals of preventing hunger and supporting human well-being.

But Congreves argues that a utilitarian ethic has limits. *If agriculture is judged most often by yield and efficiency, it’s difficult to fully account for effects that are not easily priced—so called “externalities,” or “negative environmental effects,” as Congreves describes them. These include soil erosion, water pollution, reduction in biodiversity, and greenhouse gas emissions.*

Jordan Sinclair, chief executive officer of ALUS Canada, says many farmers care deeply about stewardship of the land and ecosystems, but they operate in a system that pays them primarily for marketable products.

She says that a farmer may want to act according to a “seven generations forward” ethic. But that farmer still faces input costs, land and equipment debt, weather risk, crop prices, labor limitations, and access to markets. Farmers may not adopt an environmentally beneficial practice that raises cost or risk without a clear return, despite valuing stewardship.

If agriculture is judged most often by yield and efficiency, it’s difficult to fully account for effects

that are not easily priced. ... These include soil erosion, water pollution, reduction in biodiversity, and greenhouse gas emissions.

Sinclair's practical definition of sustainability begins with whether the next generation can successfully take over the farm. If a conservation or regenerative practice threatens the long-term viability of the farm business, it is unlikely to be sustainable.



If a conservation or regenerative practice threatens the long-term viability of the farm business, so that future generations can't take it over, it is unlikely to be sustainable. Photo courtesy of Getty Images/Peter Garrard Beck.

That is an important point for CCAs. A recommendation framed only as “the right thing to do” may not be persuasive. A recommendation framed around protecting nutrients already paid for, reducing erosion, solving a wet area problem, lowering risk, or increasing resilience is more likely to connect ethics with on-farm reality.

Regenerative agriculture is more than a list of practices

Congreves proposes regenerative agriculture as a possible framework for agricultural environmental ethics. Rather than defining it only through practices such as cover crops, reduced tillage, livestock integration, diverse rotations, and reduced inputs, she defines regenerative agriculture as “an ecological *approach and ethic* for our agricultural system that involves reciprocity with the land, to support ecosystem processes with the goal of nurturing the environment.”

The word “regenerative” implies improvement over time. It suggests that agriculture should repair or strengthen ecological processes rather than merely avoid further damage or maintain the status quo. That raises practical questions: What is being regenerated? Soil structure? Nutrient cycling? Water movement? Farm resilience?



Because responsible agriculture does not look the same everywhere, it can be useful to think of

regenerative agriculture as “any practice that improves what you are currently doing,” as CCA Aaron Breimer puts it. Photo courtesy of CSIRO.

This approach does not mean that every farm should use the same practices. Philosophical principles can guide decisions, but they do not require a universal prescription. A practice that is regenerative in one setting

may not be the right fit in another. The deeper question is whether the practice supports the ecological processes that keep the agroecosystem functioning.

Aaron Breimer, a CCA with 25 years of experience and chair of the International Certified Crop Advisers board, emphasizes this point. He offers a practical definition: “Regenerative ag is any practice that improves what you are currently doing.”

Depending on the particular farm’s needs, improvement may mean using variable-rate nitrogen, precise phosphorus placement, more representative soil sampling, cover cropping, a riparian buffer, or a small no-till experiment.

For CCAs, this framing is useful because it moves the conversation away from labels and toward outcomes, such as: What problem are we trying to solve? What risk are we introducing? What benefit can we measure? What is the next practical step?

Regional fit matters

A major theme in Breimer’s response is regional specificity. Responsible agriculture does not look the same everywhere.

Where he lives in Ontario, one major concern is phosphorus movement into Lake Erie causing algal blooms. In Iowa, a major concern is nitrogen in drinking water and rivers. A practice that makes sense in one region may not address the main problem in another.

This is where CCAs play an important role. They know that an agronomic practice is not automatically responsible just because it carries a conservation label. It must be evaluated in the local context.

That context should include the ecological processes at stake. What is the main concern: erosion, nutrient loss, yield stability, or something else? A regenerative ethic asks CCAs and farmers to apply their experience to a wider view of the system.

Context also includes the social setting. Sinclair notes [that farmers may face pressure from family history and local norms. Changing a practice can feel like rejecting what a parent or grandparent did. Trying something new can carry reputational risk if it fails.](#)

Certified Crop Advisers can help reduce that risk by encouraging small trials, perhaps not visible from the road; connecting farmers with peers; identifying cost-share opportunities; and framing change as learning rather than judgment.

Who owns the risk?

Breimer emphasizes that every recommended change carries risk. It is easy for society to say farmers should adopt no-till or plant cover crops, but if the change fails, the farmer pays. Breimer's point is especially relevant for CCAs because advisers often help farmers evaluate risk. Research findings may not apply everywhere; soil type, climate, equipment, rotation, labor, markets, and farmer experience all matter.

Farmers may face pressure from family history and local norms. Changing a practice can feel like rejecting what a parent or grandparent did. Trying something new can carry reputational risk if it fails.

Sinclair makes a similar point about risk. She says farmers should not be expected to carry the whole cost of environmental improvement. [If society wants more sustainable agriculture, we have to confront the true cost of agricultural products. So products produced with certain environmental benefits may require cost-share programs or consumers paying more.](#)

This creates a thorny ethical question. Many people want sustainable agriculture, but not everyone can afford higher food prices.

Ask better questions

One of the clearest takeaways from Congreves, Sinclair, and Breimer is that ethics begins with better questions.



Ethics begins by asking better questions, which can help CCAs understand the reasoning behind their management decisions and ultimately lead to better outcomes. Photo courtesy of Flickr/USDA-NRCS South Dakota.

Congreves argues that philosophy helps uncover assumptions we may not have questioned before. Why do we grow the crops and use the practices we do? How do we define success? Why? Why do we count some costs but not others?

Breimer suggests that CCAs show up to their clients “with an open mind, wanting to understand the why.” Why is a certain fertilizer rate used? Why is a field managed this way? Why is a client interested in trying

a new practice, or not? The goal of asking questions is not to trap the farmer or prove them wrong, but to understand the reasoning behind the decision. And if the answer is because that’s the way Dad did it, or this is what the neighbors do, maybe further exploration is needed to determine whether there’s now a better way.

This also works in the other direction. Farmers can ask why society, companies, or advisers suggest a certain change. What problem does the change address? What evidence supports making the change? How much will it cost? Who benefits from the change? Who bears the risk?

Through questions such as these, philosophy becomes practical. This technique does not hand CCAs a script or a single correct answer. Instead, it gives advisers a defined way to examine tradeoffs, test assumptions, and make the values behind a recommendation more visible.

Work with the early majority

Breimer suggests that CCAs may have the greatest influence with the “early majority”: inquisitive farmers willing to test new ideas when the evidence and economics make sense. This group matters because broad agricultural change will come when practical, economically realistic improvements become mainstream.

Sinclair’s examples fit this idea. Riparian buffers, cover crops, and no-till can be easier to suggest when they solve a real farm problem as well as an environmental one. Converting a wet area that rarely produces well into a cost-share-supported wetland saves time, reduces frustration, stores floodwater, improves habitat, and beautifies the farm. That is an ethical outcome and a practical farm decision.

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What CCAs can learn

Congreves’s article challenges CCAs to think more deeply about agriculture’s ethical foundation. Sinclair and Breimer give suggestions for making that challenge practical.

For CCAs, the main lesson is to recognize that agronomic recommendations contain built-in values and tradeoffs. A nutrient recommendation may affect profit, water quality, and greenhouse gas emissions. A conservation recommendation may affect soil health, cash flow, labor, and risk. The CCA's role is to help bring all those factors into one conversation.

Agricultural ethics helps advisers and farmers assess tradeoffs among production, profitability, and long-term stewardship.

That may mean connecting stewardship goals to farm business goals or helping farmers test changes on a small scale. It may mean explaining environmental concerns without blame or recognizing when a farmer needs support before trying a new practice.

Agricultural ethics helps advisers and farmers assess tradeoffs among production, profitability, and long-term stewardship.

Congreves asks agricultural professionals to examine the assumptions that shaped the current system. Sinclair acknowledges that farmers work within systems that may not reward environmental values. Breimer emphasizes local, systems-based change that considers risk and pursues continuous improvement.

Together, their comments point toward a useful message to CCAs: sustainable agriculture requires new practices and better conversations grounded in science, economics,

regional knowledge, and a clear understanding that agriculture is part of the environment, not outside it.

Agricultural ethics can help CCAs and farmers collaboratively ask better questions, evaluate tradeoffs, and make changes that support both farm viability and environmental stewardship.

Further reading

- Congreves, K.A. (2026). From “sustainable” to “regenerative” agriculture: What’s in a name? *The Conversation*. <https://theconversation.com/from-sustainable-to-regenerative-agriculture-whats-in-a-name-275209>
- Congreves, K.A. (2025). Regenerative agriculture—A definition and philosophy. *npj Sustainable Agriculture*, 3, 60. <https://doi.org/10.1038/s44264-025-00097-7>

Self-study CEU quiz

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1. According to Kate Congreves, what is a key reason sustainability challenges persist despite advances in agricultural technology?

- a. Most farmers lack access to conservation practices.
- b. Agricultural decisions are often approached primarily through a technical lens.
- c. Environmental regulations prevent innovation.
- d. Soil health measurements are not accurate enough.

2. Jordan Sinclair's practical definition of sustainability begins with

- a. eliminating nutrient losses.
- b. achieving carbon neutrality.
- c. adopting regenerative practices on every acre.
- d. maintaining farm profitability through the next generation.

3. How does Congreves characterize regenerative agriculture?

- a. A prescribed list of conservation practices.
- b. A government-supported production system.
- c. An ecological approach and ethic that supports ecosystem processes.
- d. A method focused primarily on reducing fertilizer use.

4. According to Aaron Breimer, regenerative agriculture can best be described as

- a. any practice that improves what is currently being done.
- b. any practice that eliminates environmental impacts.
- c. a system centered on cover crops and no-till.
- d. a transition away from conventional agriculture.

5. According to the article, a conservation practice should be evaluated

- a. based on local agronomic and environmental conditions.
- b. primarily by whether it is widely adopted.
- c. according to national sustainability rankings.
- d. by its ability to reduce input use.

6. What role can CCAs play in helping farmers adopt new practices?

- a. Requiring farmers to follow research recommendations.
- b. Reducing risk through small trials and practical support.
- c. Prioritizing environmental outcomes over farm goals.
- d. Encouraging rapid, farm-wide implementation.

7. Breimer notes that every recommended management change

- a. requires additional government support.
- b. improves profitability in the long term.
- c. carries some degree of risk.
- d. should first be proven in every region.

8. According to the article, philosophy becomes practical when advisers

and farmers

- a. evaluate management decisions using measurable economic and environmental outcomes.
- b. ask questions that uncover assumptions, values, and tradeoffs.
- c. rely on research-based recommendations to identify best practices.
- d. focus discussions on practices with the greatest potential return on investment.

9. According to Breimer, CCAs may have the greatest influence with which group of farmers?

- a. Producers who prefer to wait until practices are widely established.
- b. Producers who have already fully adopted regenerative practices.
- c. Producers who are experimenting with conservation practices on limited acreage.
- d. Producers willing to evaluate new approaches when supported by evidence and economics.

10. According to the article, why can reasonable people disagree about whether a particular agricultural practice is sustainable?

- a. Sustainability metrics are not yet standardized.
- b. Research findings often contradict one another.
- c. Environmental impacts are difficult to measure accurately.
- d. People may prioritize different values and desired outcomes.

This quiz was drafted with AI assistance and reviewed by the editorial team for accuracy and appropriateness.

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