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**LETTERS**

**Doubts About GM Crops**

N. Fedoroff's Editorial ("Seeds of a perfect storm," 25 April, p. 425) calls on the scientific community to rally around genetically modified (GM) crops as the basis for "a second Green Revolution." She asks whether we have "the will and the wisdom" to lower regulatory barriers and integrate these crops fully into world agriculture. However, her framing of the issue is dangerously narrow.



**GM crops**

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First, the decision about whether and how to deploy GM crops is not just about safety. There are two imperatives for 21st-century agriculture: to increase yields and to fully integrate agriculture with biodiversity conservation and the provisioning of ecosystem services. Fortunately, it appears possible to do both (1), but it is not clear what role GM crops can or should play in an agriculture designed for systemic benefits and not just for maximizing the yield of monocrops.

Second, consumers are correct to be skeptical about a regulatory process in which the corporations being regulated have extraordinary influence. In this

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context, to simply appeal to the *fait accompli* of a quarter-century's experience and a billion acres on the ground is naïve. As Marvier *et al.* point out in the same issue (2), despite more than a billion acres, we still don't have a full accounting of the ecological costs (or benefits) of these crops.

Finally, Fedoroff presents no evidence that GM crops are the key to solving our looming global food supply issues. A recent international assessment (IAASTD) concluded that they are "appropriate in some contexts, unpromising in others, and unproven in many more" (3). Although the IAASTD has its critics, it appears to be the best starting point we have for getting past the narrow self-interest of agribusiness corporations. Molecular biologists who sincerely wish to see their efforts serve humanity would be wise to treat the public as a full and respected partner in this debate.

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2. M. Marvier *et al.*, *Science* **320**, 452 (2008).
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