

Are You a Threat to Civilization?

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Are you trying to keep some plants healthy? Then you, as a plant pathologist, may be accused of being a threat to civilization! What are you going to do about it? This is William C. Paddock's challenge to you (4). Presumably, most APS members are engaged in research and activities designed to keep plants healthy and are proud when any impact of their work extends internationally. Thus, Paddock's challenge deserves an answer by APS and its membership.

What is Paddock saying?

Paddock's argument is based on the Malthusian theory that when food production

is increased, the population grows until food supplies are exhausted, then famine controls further population growth. Thus, a plant pathologist participating in food production programs in countries with a high population growth rate is contributing to greater famine in the future and is threatening civilization. Paddock recommends declaring a moratorium on technical assistance for food production programs in countries where population growth rates are considered too high (3).

Although in my opinion much of Paddock's argument is based on dubious logic, I would like to concentrate here on those points on which I am in at least partial agreement with him, then explore how APS and its membership might respond to Paddock's challenge.

"Plant pathologists during the past 40 years have played a key role in helping the third world produce more food." Paddock made this statement in 1983 (4) not to praise plant pathologists but to charge them with "contributing to a situation that ultimately means that more people will starve." Nevertheless, I agree with him when he recognizes the significant contributions by plant pathologists, led by such pioneers as Stakman, Harrar, and Borlaug. But why mention that here? Because Paddock is acknowledging that plant pathologists have been successful in increasing food production! In 1970 he wrote (2) that "the Green Revolution is an illusion. . . far and away the most important factor for increased production is the improvement in the weather." And in 1975, at a symposium at the APS annual meeting, he reiterated his belief that attempts to increase food production in developing countries were well-disguised failures (3). So it is with pleasure that I can agree with Paddock and welcome his recognition that plant pathologists "have played a key role in helping the third world produce more food."

Food production breakthroughs and complacency about world population growth. I also agree with Paddock that success in food production programs should not encourage false optimism over future food supplies (4). No matter how successful we are in increasing food supplies, stabilization of world population must precede any permanent solution to the problem of feeding the world.

In 1970, on the occasion of the awarding of the Nobel Peace Prize to Norman Borlaug, plant scientists reacted with an understandable burst of shared enthusiasm and pride. But Paddock warns against basking in "the reflected glory of that Nobel Peace Prize" (4). How fortunate that Borlaug himself, in his acceptance speech (1), voiced the needed warning: "If fully implemented, the Green Revolution can provide sufficient food for sustenance during the next three decades; but the frightening

power of human reproduction must also be curbed. Otherwise the success of the Green Revolution will be ephemeral only." Borlaug clearly exposed the danger implicit in any complacency toward the basic problem of world population growth.

Can we provide adequate food supplies until world population is stabilized? Some very significant demographic trends during the past few decades indicate that world population stabilization is an attainable goal. Demographers are now debating the time and level of this population stabilization. Even if we accept a "moderate" prediction of stabilization at 12 billion by the year 2100, we must all recognize the enormity of the challenge to produce enough food for this number of people. This will require a coordinated international effort utilizing all the resources, technology, and talent we can muster, within the restraints imposed by rational protection of the environment. Such a worldwide effort would dwarf any program we have yet seen. World food production would have to nearly triple during the next century.

Here my fundamental disagreement with Paddock becomes clear. Paddock believes we will be unable to feed the world's population during the next century and recommends we deny technical assistance to those countries with population growth rates considered to be too high (3). I believe we are equal to the task of feeding the world until population stabilizes and that coordinated global campaigns to produce more food *and* to control population growth will provide the only sane, humane solution to the food/population crisis.

The challenge: What action should be taken by APS? What can plant pathologists do, as members of an international scientific society, to help solve the food/population crisis in the world, not only during the next few decades but also during the next century as world population approaches stabilization?

At the October 1984 meeting of the Caribbean Division of APS, its membership approved a resolution requesting the International Cooperation Committee to prepare a policy statement, with specific recommendations, on the participation of APS and its members in international programs to increase food production. The committee report is to be submitted to Council for consideration. Hopefully, the report will then be presented to the APS membership for approval and implementation at the 1985 annual meeting in Reno, Nevada.

APS members have a unique opportunity to contribute to a decision on this food/population problem of such global concern. Forceful and specific recommendations are needed to guide APS policy and involvement in the future, not only in programs to increase food production but also in programs to control population growth. Both are integral parts of any solution to hunger in the world.

Let us participate in this decision—as plant pathologists proud of our science and as citizens of one world. Let us take the initiative to meet this challenge and join with our fellow scientists in the disciplines of demography, medicine, nutrition, economics, environment, and agriculture in a coordinated worldwide campaign for food and health for future generations.

Literature Cited

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