PRESIDENTIAL ADDRESS

New Visions, New Perspectives

Donald N. Duvick*

A tone poem—an orchestral composition—by Richard Strauss is entitled *Death and Transfiguration*. It deals not only with death, but also with change and immortality. Death is not annihilation but rather the prelude to a new state of being, one with thrilling new perspectives and amazing new visions—a transfiguration. The music sweeps the listener past the throes of death and on up to splendid new heights.

It occurred to me recently, while musing over the program notes at a musical concert, that the theme of Richard Strauss’ tone poem also might apply to us mundane agronomists, or at least to our profession of agronomy. We, too, are considering “New Visions, New Perspectives.” This implies that we, too, foresee some kind of transfiguration (our biotechnologists might say, a “transformation”), something new and amazingly different for our future, for the future of agronomy and agronomists. I thought of this interpretation when we chose the theme for this conference, last year. It says clearly that indeed we are looking forward to striking changes in our profession (and as well in our American Society of Agronomy, which reflects that profession). But I had not considered that the death of our profession might be required, also. This was a sobering thought.

But then again, following the music’s theme, I realized that I should consider, not annihilation of our profession, but rather leaving behind agronomy as we now know it. This would be the essential prelude to assumption of a new form or forms, something marvelously different and yet still containing the essence of what we today call agronomy.

Now I really was stuck. What is the essence—the soul—of agronomy? I know very well the pressures for change in our profession. I know what people want us to drop and I know what they want us to add. I know that we are called upon to be all things to all people, to be new-age molecular geneticists, holistic environmentalists, super agents of technology transfer, that we are called upon to forewarn our parochialism and become internationalists, to become agents of social change in the countryside, to work more closely with industry, to stop working with industry, to move into more basic kinds of research, to do more problem-solving research, to include non-degreed practitioners in our ranks, to better associate and collaborate with scientists doing basic research in allied disciplines, and above all to abandon our self-serving, reductionist, disciplinary specialization in service of production agriculture, and instead to become holistic in attitudes, understanding, and professional work.

How can we possibly be all these things—even if we parcel out the work among ourselves—and still know and feel that we all are members of the same band—the same profession? What truly ties us together?

Historically our roots are in production agriculture—in crops and soils, and how people manipulate them to produce food, feed, and fiber. But now we also use our skills in fields barely or not at all related to agriculture. We manage cleanup of toxic waste sites; we are concerned with invention of plant-produced substitutes for diesel fuels and plastics; we deal with social organization and economic problems of the countryside; we are concerned with off-farm occupations of the rural community. And we still deal, as well, with production agriculture.

It seems to me that the essence of our profession—of agronomy—is this: We work with the manifold interactions of soils and plants as they are manipulated, intensively, for human welfare.

The core of such manipulations for the past 10 000 years has been farming—crop farming—and that still is the core. But now, technology has divorced most of the people in the developed world from farming and is doing so even in much of the developing world. In Third World countries, the urban sector is growing with great speed.

For a time—during most of my professional life-time—it seemed that not only could most people ignore the source of their well-being—of their food and drink—but even food producers and the agronomists who aided them could ignore or gloss over the profoundly biological and sociological basis of their profession. Chemistry and engineering did very well on their own to increase and maintain food production.

Now we know better. We are concerned about groundwater contamination and wetlands reconstitution and pesticide residues and sandhill crane habitats and spotted owls and disappearing rural communities and migrant labor and rural health, and about the ethical basis for everything we do—or have done. We now know that production agriculture is profoundly...