The vision of the structure of the biobased economy of twenty-first century agriculture is, at best, a fuzzy picture of how genetics, production, processing, distribution, and marketing to consumers will integrate. Several important political and social implications must be addressed before specific roles of the players in the biobased agriculture game will become clear.

As the CEO of a new-generation farmer alliance, I believe I have a good understanding of the way in which the commercial family farmer thinks about the future. Commercial family farmers understand the need to get closer to the consumers of food and non-food products if they are to be successful.

The questions I want to address today deal with the role of commercial farmers.

• Who are twenty-first century farmers?
• What is their position in twenty-first century agriculture?
• How are they surviving today?
• What does an alliance of farmers look like?
• What do farmers want out of agriculture?
• What role do farmers want to play in the biobased economy?

Producers and agribusiness people must address the question, “Will farmers be serfs or partners in the new biobased economy?” The 21st Century Alliance of farmers, developed in the Central Plains over the past four years, is a possible prototype for other committed farmer groups. They want to be partners, and they want to be vertically integrated in the production of biobased agricultural products.
When the alliance was founded in 1996, the vision was simple: to form an organization of farmers — a business of farmers — that would provide profitable commercial opportunities. Today that business is made up of 750 farmers from ten states. We have started five new-generation cooperatives, raised $7 million in farmer equity, developed identity-preserved crop systems for our businesses, and created a vision of what can happen if farmers look at the market place for income instead of relying on government payments.

Historically, returns on investment in production agriculture have averaged 1 to 3 percent. In contrast, food processing as an industry has averaged a return on investment greater than 15 percent since 1980, according to Business Week magazine. In 1997, US per-farm earnings averaged $52,350, of which $46,360 was non-farm income and only $5,990 came directly from the farm. With such statistics underpinning agriculture, we need to be aware that a significant portion of net commercial-farm income is in the form of government payments.

In Kansas, the Farm Management Association annually collects data from about 2,000 family farms. In crop year 1998, the farmers in the association received, on average, a staggering 60 percent of their gross income from government payments. The government put $23 billion directly into the pockets of farmers in 1999, and in an election year with a booming economy it looks like the government is poised to do that again. Is this a sustainable system? Granted, in order to ensure that we keep farmers farming in times of low prices, government payments are necessary. But, in the long run, I do not believe that the American consumer will be willing to pump $20+ billion per year into farm payments.

These trends have driven the farmers I work for to explore novel means of obtaining more dollars from the marketplace. With the new technology of biobased agriculture just beginning to take off, there is a tremendous opportunity to do it right. To be full partners in new production systems will take capital investment, but visionary farmers will be willing to make such investments if it ensures their long-term survival.

To provide a better understanding of what this means, there follow a few examples of what we have been doing in the Central Plains. In 1997, the first “opportunity to invest” presented to Alliance farmers was a flourmill in New Mexico. We raised $3.2 million in equity from 375 farmers for the purchase. In 1998, a pinto-bean processing facility was bought with new equity from sixty farmers in Colorado, Nebraska, and Kansas. Alliance members have also raised $3.3 million in equity for two start-up green-field commercial dairies with milking capacity for 4,300 cows.

These investments are geared towards adding value to commodities that our members are already producing. Each farmer must deliver a specified number of bushels of corn, sorghum, wheat, or beans to the processing facility per share of owned stock. This guarantees that the facility has the needed raw material, and incentives are in place — because of ownership — that reward farmers for...
delivering their best quality commodities, identity preserved, to “their” processing facilities.

Critical to the success of the new biobased agricultural economy are guaranteed supplies of quality raw biomass products. Traditional methods of inducing farmers to produce for specific end-uses, i.e. contracting for acres, bidding up the market to get premium quality, etc., are not nearly as effective as partnering with stakeholders who also are producers of the most important manufacturing resource: the raw product.

In observing some biobased business startups, I have seen all kinds of approaches to the “farmer.” In most cases there is an adversarial relationship. In the case of Isobord Enterprises, Inc., a company manufacturing particleboard from wheat straw, located in Elie, Manitoba, local farmers signed five-year contracts to allow their wheat straw to be harvested for the new production plant. The gross return to the farmer is approximately $5 per acre. The plant next door holds no financial incentive for the farmer who has nothing invested; the concept of local employment and improved stability for the rural community of Elie is of only limited relevance to the participating farmer. With expiry of the initial contracts in five years, there is a possibility that, lacking sufficient motivation, the local farmers will no longer participate. The Canadian government invested $140 million in a plant that is guaranteed a supply of straw for only five years. Isobord will go out of business if it cannot obtain straw sufficiently close to the plant to compete with the wood-based particleboard industry. The flaw in the current system is evident: the farmers are not committed. The short-term goal of the business, “to make the most money possible,” caused the creation of winners and losers instead of partners who, together, could produce a viable agricultural biobased alternative within the highly competitive wood-based market.

To the question of whether farmers will be serfs or partners in the new biobased economy, the answer is, “It depends on the farmers.” Those with vision want to progress and retain ownership of their commodities longer.

Partnerships are better long-term options, both for farmers and for agribusiness, than contract production. “Win-win” relationships are possible if agribusiness adopts the long-term view of profitability in new biobased production and marketing systems. Biobased raw materials (crops) will likely need to be grown close to the plants processing them, giving rural communities an important role in these new relationships.

Questions that need to be addressed relating to these developing industries, are as follows:

• Who really benefits from an increasing reliance on biobased economies?
• Will the farmer play a key role in providing the various commodities for the new systems of bioprocessing, or...
• Will contract-driven agriculture replace the current system of free market, open supply/demand, independent family-farm agriculture?
• Will the conglomerates own the land and control the production?
• Will we ensure that the producer is compensated fairly for his effort, or will farmers sell out for a nickel premium on everything for eternity?
• Will the American farmer become the second choice for feeding the world because he is no longer cost-competitive?
• Would today's naysayers of biotechnology change opinion if they went hungry?
• Will public-policy decisions regarding biotechnology be driven by the developed world, which is fat and happy, or by the empty stomachs of the developing world?
• Will the 60 percent of gross income provided by government (1998–99) to traditional farmers (a $22 billion direct payment to prop up farm income in the US) continue in a period of economic downturn?
• Will the “non-farm” public be willing to subsidize farmers in the future? Does the public still believe farmers are “being paid not to produce” as the supply management policies of the 1980s seemed to suggest?

I have more questions than answers, but one thing is not in doubt: many variables will influence the future acceptance of biobased agriculture.