Good evening. I would like to extend my personal thanks for the opportunity to speak with members of the Cal Poly family, distinguished guests and supporters, joining together this special evening, celebrating the CAFES Center for Sustainability.

I am here today because at an early age, I was made aware of the sacredness of farming and the security of growing food, from members of my own family that had witnessed firsthand the horrors of the 2nd World War and the inhumanity of the concentration camps in Europe. When they arrived in the United States, their main goal was to produce food for their families and their community and this was a form of Paradise. This word paradise is derived from the Persian Avestan words paire and daeza, meaning “a wall, enclosing a garden or orchard, abounding with various animals and plants where all ones needs could be fulfilled.” Paradise is part of our history from the earliest times and yesterday having driven through some of the most productive farming land on earth, paradise seems certainly achievable.

During the last 40 years, my work has been involved with plant breeding, genetics, molecular biology and conservation issues. I am lucky to work for a company such as Mars, Incorporated, which takes a science driven, long term view of critical issues and to be part of the College of Agricultural and Environmental Sciences at the University of California, Davis. There I have access to greenhouses, open fields with deep soil and some of the best science labs globally to help address modern plant breeding. Sometimes I feel like a magician, moving pollen from one corn plant to another, helping to create new cultivars. It allows one to consider what is needed for the future and be part of the solution. It poses questions beyond normal expectations to consider what is possible. Can one breed a corn that might fix its own nitrogen atmospherically and efficiently? Or, what other goals might we establish for sustainable agriculture?

At this special occasion tonight, we are celebrating the Center for Sustainability. We have time to reflect and consider the dominant issues of the most productive and diverse agricultural region in the United States and the world and to understand that what we learn here can influence everyone, everywhere.
Solutions, though, cannot be found in isolation; it takes a vast network of partnerships to build sustainability. Everything is on the move; everything is transformed by nature and forced into new paths. One thing, withered by time, decays and dwindles. Another emerges from ignominy, and waxes strong. Thus, the nature of farming as a whole is altered by constant, unrelenting pressure. How we understand the stress and shocks to the system, how we work in, and how we anticipate those occurrences is critical. The CAFES Center for Sustainability is a key to understanding the solutions. It is an unbiased forum for bundling our values.

During the 1st century, Marcus Terentius Varro, a Roman landowner stated: “Agriculture is a science, which teaches us what crops are to be planted in each kind of soil, and what operations are to be carried out in order that land may produce the highest yields in perpetuity.”

The principles of sustainable agriculture are embedded into our lives. We are forced to confront them daily. The study of these connections is an endless fascination and the understanding of those connections is an indispensable part of humanity’s self defense against hunger, malnutrition and climate change around the globe. Those of us gathered here today are working to be that adaptive force. What we want is an understanding of agriculture. One of the many inconveniences of real life is that we are seldom given a complete story. Instead of indulging into a fruitless debate about what the strategy should be for sustainable agriculture, it is more rewarding to look at the best way forward for a county, a landscape, an ecology and the sustainable economy of agriculture. Looking for sustainable and equitable farming methods means to refrain from any kind of ideological debate and concentrate on pragmatic decisions to find the best solution. There are many roads to success and we must pursue them all together sharing our experiences.

There are multiple forces for change today. Climate change. Science. Government policies and regulations. What is needed is an understanding of the status of knowledge and how we interact with that understanding. Too much of what we hear is anecdotal. First, if we want to determine the future of sustainable agriculture it must stand up to examination and improvement from theory to practice. It is translatable. Scalability is the key. Second, what are the critical uncertainties or knowledge gaps? Vulnerabilities. How do we define these and how do we collectively move forward? It will take agricultural science and technology, research and development to help solve problems. Third, how much do we spend collectively on sustainable agricultural practices? Is it enough? Last, how we consider these complexities will determine our sustainability. The responses to the multiple forces of change are our burden together—farmers, scientists, policy makers, private industry, consumers, all collaborating to consider the future. This is Freedom. If a farmer makes money, he can think outside the box. If he struggles to provide for his family, change is difficult and not an acceptable risk. What needs to be done? Link initiatives in sustainable agriculture. Engage with diverse stakeholders. Convene discussions on controversial issues, shape a forward-looking agenda, integrate activities across this evolving landscape, assemble interdisciplinary
teams, discover scientific principles and practices, subject them to review, pool our values and bundle our resources, producing results that meet the needs of sustainable agriculture today and for the future generations to come. Are we able to accomplish this task? It is not certain. And here in lies the issue. Are we willing to take a hard look at our practices and say we are really sustainable?

These are the next steps to fulfill the vision of the Center for Sustainability. Identify the vision for decades to come and adapt them as we learn more. Develop the logic to get there. Secure commitments to a partnership to make it happen. This exercise will change how we view today, tomorrow and the future. Do not avoid complex questions or technologies. This is an intentional choice built out of faith that there are new answers to old problems of agriculture.

I am here today to encourage, that the next generation of leaders of California agriculture meet the needs of our generation without compromising the needs of future generations. This is collaboration. Farmers, extensionists, plant breeders, soil scientists, entomologists, ecologists, policy makers, consumers and more all working together in a tractable conversation. This is the work, the mission of the CAFES Center for Sustainability. To bring the dialogue together without dogma or trepidation, thinking about the intent of leadership.

The question tonight is: are we committed to build diverse partnerships to create the future? Are we willing to embrace multiple solutions to the problems we face? Sustainable agriculture is the solution. Dogma can never replace logic. Dogma cannot replace the use of the best and appropriate science translated to the farmer and the entire supply chain. The challenge to the Center for Sustainability will be tested as we work to change the status quo and create the future. Leave no stone unturned in this quest. It is too great an opportunity to miss. Do not let “perfect” get in the way of doing good!

In closing, I would like to share one of my favorite quotes from a great American leader:

“The test of our progress is not whether we add more to the abundance of those who have too much; it is whether we provide enough for those who have too little.”

Franklin Delano Roosevelt
January 20, 1937

Thank you.