

Janus Looks at the World Avocado Industry



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KEYNOTE ADDRESS

Welcome to California and this Congress. Interesting things are in store for us.

The privilege has been given to me to suggest a keynote for this gathering.

A keynote address has been defined as one that concentrates on arousing *unity* and *enthusiasm*. Your very presence here is evidence that enthusiasm already abounds. I shall try to establish the critical importance of unity.

Perhaps there is more than one keynote to be emphasized as we consider the shape of the future. "Global structure" certainly is one, of increasing significance. "Commonality of purpose" is another. "Complexities of operation" is still another. And "Opportunities" is yet another. Before we consider these important areas, however, there are some questions to consider.

I wonder why we are here, each of us. What do we hope to *take* from this Congress? What will each of us *give* to it?

That last question is important because our attendance here inevitably invests in us the responsibility of leadership, if this Congress is to accomplish anything lasting.

Why are we here?

One reason, no doubt, is to gain knowledge, so that we can better answer the questions the future will bring. There will be a bountiful crop of them, for sure. Among them will be these:

How will the "game" be played in the future?

Who will be the "players?"

What will be the market for our product?

Who will supply the market?

What will be the problems we will face?

What will be the opportunities?

Who will solve the problems?

Who will exploit the opportunities?

Within those questions are still other questions. We will study some of them together, this week. We will leave here with many of them still unanswered, but better recognized and appreciated.

I have chosen Janus as my co-keynoter. Let me tell you about him.

Janus was a Roman god with two faces one to look into the past, one to foresee the future. January was named for him the beginning month of each new year in the Julian calendar. The Romans paid Janus homage by pondering well the prospects of an undertaking before entering upon it. The poet Ovid made him say, "Everything depends on the beginning." Janus and I propose to look at the shape of the future for the avocado industry by looking first at our beginning. That can be useful, I think, if we would avoid reinventing the wheel.

"Everything depends on the beginning."

Avocados have been around for centuries, known in their native areas of Mexico, Central America, and northern South America as a fruit of high dietary value. They were there as Nature presented them, a heterogeneous mixture of seedling trees. They were not commercially exploited until the first years of the present century, when their potential as a fruit of commerce was developed—I will say modestly- by Californians. It was in this state that avocado growing became a recognizable "industry." It was here that avocado growers accelerated propagation of superior varieties, organized themselves, set standards, created marketing strategies, and successfully developed widespread demand. In the process of developing their industry, the California growers learned to utilize research in its many forms and education and horticultural pragmatism and market-building techniques. They succeeded well; so well, that they created for themselves something they may not have expected: competition!

And where have we gotten to?

From the few thousands of pounds being produced annually from a few score acres in California when the growers organized themselves in 1915, the California industry

reached in 1987 the record harvest of 556 million pounds. Our production since 1987 has been lower for a number of reasons, and may not again reach the 1987 record level, but should remain at high levels for some years to come. I emphasized "may" with knowledge that numerous past predictions that our industry would fade have proved faulty.

In that same period of time, commercial cultivation of avocados, especially in recent years, has broadened to include 42 countries of the world. Their combined contributions, including greatly increased production that has come from expanded cultivation in the countries in which avocado is indigenous, have brought present-day worldwide production to more than three and one-third billion pounds. Let no one underestimate us: We are an important industry!

What will become of It?

The business of this Congress is to visualize the future to estimate the shape of things to come. To achieve all that our Congress can achieve, we must go beyond merely that. We must give attention to the wealth of information that will be coming our way this week, and ponder upon it, and understand how it all fits together, and think together about how to use it to best advantage.

And we must devise ways and means to capitalize upon the circumstances of the future, whatever they may be; and to influence the impact of what will come.

I do not know what the "Shape of Things to Come" will be. None of us knows. And when this Congress adjourns, still none of us will know. It is not essential that we do.

Philosopher Eric Hoffer has given us good counsel. He said, "The only way to predict the future is to have the power to shape the future."

Physician Jonas Salk has observed that, to influence the future we must influence the present.

If they are right, our concern, it seems to me, should be more with shaping our future than with trying to define what it might be. Our future will be, to some extent, the result of whatever actions we decide to take now. Our future may not be totally in our own hands, but it is within our power to influence somewhat, at least.

We should be aware, however, that the future will not be the same for all of us. The destiny of each region of our global industry will not be decided entirely by the region by itself. Instead, regional destinies will be significantly affected by global factors that are beyond regional control. To best shape the future for our own regions, therefore, it behooves us individually and collectively to serve as wisely as we can, the common destiny.

There are two things that can be said about the future with certainty.

There will be problems. There will be opportunities.

These will be among them:

There will be great changes in the world's economies. As early as next year, we will see the beginning of significant changes ultimately of "boom" magnitude, it is forecast as the European powers integrate their economies into a community market. It has been predicted that 140 million new consumers will generate demand for a variety of goods. Will the global avocado industry be ready to capitalize on that new demand?

Europe will not be alone in the restructuring of international economies. The importance of the Pacific Rim is increasing at a rapid pace, and the Pacific Rim nations are already well on the way to economic realignments. They will present an increasingly potent outlet for exported goods. Though avocado sales in the Pacific Rim nations at present are miniscule, the demand for avocados in Japan is growing and the demand for avocados in Korea is growing and demand for avocados elsewhere in that part of the world can be built. There is opportunity awaiting. Will we seize it?

The world's population as we meet here is more than 5 billion. It is expected that it will reach 8 billion by the year 2025 only 34 years away. The additional 3 billion people must be fed. Who will feed them? And *what* will they be fed? Much of the population increase, unfortunately, will occur in impoverished countries where opportunities for profitable avocado exportation are seen as minimal. *But are they really?* Even in such countries, there are prosperous classes capable of absorbing substantial quantities of imported products at a fair price. China comes to mind; and India. For that market at least, the opportunity to build demand for nutritious foodstuffs seems to beckon. Is there an opportunity here for the world avocado industry, with its nutritious product? And what about the Soviet Union? The shape of things to come in that troubled part of the world is presently unclear, but surely the troubles will ultimately end, and 285 million potential avocado consumers will be presented to the global avocado industry.

From a different perspective, the evolving economic script for the future will have now unknown but potentially great impact on the global avocado industry if forces currently calling for free trade are successful. If they do not succeed in this round of talks, there is good reason to believe their objective will continue to be pursued until the proponents of free trade eventually are successful. The implications are more than merely marketplace economics, especially with regard to the avocado industries in the Americas. What, for instance, will happen to exotic pest protection quarantines now in place in the United States? The answer is unknown at this time; but it is no secret that the California and Florida avocado industries believe they must remain in place and the Mexican avocado industry believes otherwise. If the quarantines fall, the impact on fruit growers in the United States is potentially devastating.

Even disregarding the matter of free trade, within this country pest control will become more and more difficult as our crops are more and more threatened by pests that have

already entered the state, fruit flies are examples, and as chemicals become less and less a pest control option because of legal restrictions on their use.

Elsewhere in the world where avocados are grown, especially in tropical regions, problems with both pests and diseases will become more important as marketers in those countries seek a share of the global avocado market. They cannot offer disease-infested fruit and expect to compete profitably in multi-sourced markets. To the extent that they may attempt to do so, they will weaken market opportunities for the marketers of good avocados as well as their own. Control measures for the most important of these avocado fruit diseases exist already, but the economic urgency for their effective application may not be fully appreciated in some areas. Surely, resistant variety selection and orchard hygiene present opportunities worthy of consideration by avocado growers whose geographic capability to produce avocados abundantly is established.

An area of increasing concern in California, at least potentially so in Mexico and quite likely elsewhere, is the availability and cost of water for irrigation. California is enduring a five-year shortfall of rain; and many acres of avocado plantings have already been removed, and the whine of chainsaws has not ended. Restricted deliveries of water to avocado orchards throughout Southern California have put many more acres at risk, and near-term production will almost certainly be adversely affected. The Metropolitan Water District (MWD), the provider of water throughout most of southern California, imports 2 million acre-feet of water per year from the Colorado River and from northern California sources-more than half the total used in southern California. Below normal rainfall in the western states of the United States has forced the MWD to restrict severely its deliveries to its client communities, and avocado growers as end users are among the victims. The MWD has plans to reclaim and desalinate used and brackish waters up to 300,000 acre-feet by the year 2010 about twice the present availability of processed water, and some of that water may become available for the irrigation of avocado orchards; but the overall supply of useable water will remain inadequate and increasingly expensive. Just ten days ago, California water officials forecast that the cost of water in California will skyrocket in the coming decade as water agencies wrestle with the worsening problems of supply and quality.

The plain and simple fact of water availability in California is that the supply is insufficient to take care of the needs of a burgeoning population and still provide growers with irrigation water at affordable prices. There is no foreseeable likelihood of significant improvement in the situation.

I cannot speak with personal knowledge of the irrigation water availability situation in other avocado-producing countries. Such limited information as I do have, however, strongly suggests that availability and cost of water for orchard irrigation are potential problems for the avocado industries in at least some other places than California. It would please me to learn that I am mistaken, but pessimistic predictions by hydrologists don't point that way.

The shape of things to come in the California avocado industry will be affected not only by the availability of water, but also by the availability of land. Agricultural land-especially land suitable for avocado production-is disappearing at a startling rate as the population of this state expands. One likely result of this double jeopardy is that middle-size avocado operations will diminish toward the vanishing point, making way for people. There is conjecture on the other hand that large-scale avocado operations will increase in number and size. Our total acreage might decrease, but our production and our profitability might increase as the economic consequences of economies of scale.

So, even the gloomy prospect of land and water insufficiency may have an "opportunity" side to it. Botanists may develop very small, highly productive avocado trees that can be closely planted to yield far more avocados per acre than present orchards, yet use little or no more water. The concept has been tested experimentally with apples. Why not avocados? The development of new varieties such as 'Gwen' already has demonstrated that the concept is no pipe dream. Imagine, if you will, the many other changes that would become feasible in orchards of pygmy avocado trees changes in the way we irrigate, the way we fertilize, and even in the way we harvest.

It is not far-fetched, I think, to suggest that we could be producing avocados on genetically-engineered trees in the future...trees, for instance, that will be made resistant to weed-killing chemicals by the introduction of mutant genes...trees that could be made resistant to *Phytophthora* and other diseases...trees that will bear fruit of even higher nutritional value than what we have now.

Such genetic engineering capability is not the stuff of dreams; it is here now! A recent news report told of the development by researchers at the Scripps Clinic, in La Jolla, California, of an inexpensive technique for producing specialized antibodies that could be used to give agricultural crops a functioning "immune system" that would protect them against insects, fungi, and other pathogens.

I am certain that there are now unimagined other developments in store for us, as well. Somewhere in our future, I believe, there will come improvements in the equipment and the means for harvesting and handling the avocados we produce more efficiently, all the way from tree to market and more profitably. It has been estimated by experts in such trend measurement that agricultural engineering is in fact among the fastest growing employment opportunities in California.

We should not overlook the predictions of reputable climatologists that there is a high probability of unprecedented warming of our global climate in the coming century if nothing is done to change current trends. The range of the predicted warming, 1.5 to 4.5C, may not appear to be a catastrophic change. Consider, however, that when the average global temperature was only 5 degrees colder than the present era, we had an ice age! Global warming could bring about a rise in global sea level (we might lose Florida), more powerful hurricanes, greater global-mean precipitation but *regional decreases* in rainfall, and a long term drying of the soil moisture during summer in some

continental regions. At least in theory, it might cause removal of the avocado producing capital of the United States from southern California to Chicago!

One of the changes that could help to slow the buildup of atmospheric carbon dioxide that will cause global warming would be to reduce the rate of tropical forest destruction. Is there an opportunity here for the global avocado industry? Perhaps we could help feed the 3 billion people yet to be added to the world's population by planting the destroyed forests to avocados. That may sound tongue-in-cheek, and is so intended. But *maybe, just maybe*, there might be an idea here to think about.

Many of the papers that will be presented at this Congress will not, of course, directly address the problems and opportunities I have tried to describe in these remarks. They will bear on those problems and opportunities, however, because they will be part of the great body of avocado research that increasingly is making it possible for the avocado industry to produce greater yields of better quality avocados at lower cost. Production research, understandably, may be of more interest to avocado growers than marketing economics. It is as results come from production research, however, that some of the other things I have been talking about must be in development if there is to be a profit at the end. The cold, hard reality is that whatever we do, nothing happens until somebody, somewhere presses a key on a cash register that says "sold."

So, what is there to do to bring all of this together and make it work?

First, foremost, and most importantly, each of us needs to answer to himself the question I asked at the beginning of my remarks: "Why are you here?" What is your objective, your goal, in attending this Congress?

Then, together here and later, we need individually and collectively to lay plans to get to where we want to be.

And then we need to construct strategies and programs that will implement our plans and get us to our goals.

We need to work together on all of this. We need to coordinate our production research, for example, and to share the results and the costs!-thereof.

Should we not, also, give thought to the creation of some sort of mechanism that will allow us to work coherently in developing greater market demand and in serving that demand efficiently to reap the greatest shared benefit that can be achieved? Such a mechanism might have the form of an industry-controlled international commission with international authority and powers. Governmental control is undesirable and ought to be avoided, though total avoidance of governmental participation may be unrealistic. Perhaps there is a participative role in this scheme for the United Nations, or an agency thereof. I do not know now how the mechanism could be effectively established. I know only that what is needed can be had, if there is determination to go for the goal; and I think the time to explore our options is at hand.

Toward the ends I have identified and others not mentioned, we should have, perhaps, a world association or society through which we can work together in fields of mutual interest; and there will be discussion of that possibility during this Congress.

I have deliberately not suggested that we attempt to form a cooperative of international avocado producers to achieve our desired ends, because I am not sure one would be successful. I have reluctantly come to believe that cooperation is not a natural characteristic of mankind not of American mankind, at any rate. Competition is. With intelligence, we can make competition work for us in a world industry, make it serve our individual objectives while at the same time accomplishing much of the same result that cooperation might yield. Competitors can join forces in areas where all parties can benefit alike, and they can part company when one or another sees opportunities for individual gain through management prowess or marketing skills. Someone, of course, will have to referee and assure that the playing field remains level.

Let me be realistic about this. Working together as I am suggesting is not an easy thing. But it can be done. I believe strongly that it is worth doing. We will all miss our goals if we do not work together toward our common objective.

Having said all that, I think I have found a new keynote on which to end: It is that, like it or not, we are all interdependent.

"Interdependence" is the watchword I suggest for this Second World Avocado Congress. Recognition of our interdependence and of the importance of joining our hands and minds to solve common problems and to work toward common goals will define the "shape of things to come" for the World Avocado Industry.

Thank you for your attention. It is time to get to work!