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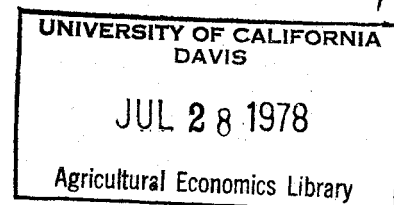
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**CHALLENGES AHEAD FOR  
WESTERN AGRICULTURE**

by  
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**Prepared for delivery to The Western Economic Association Annual  
Convention, Sheraton Waikiki, June 21, 1978.**

## CHALLENGES AHEAD FOR WESTERN AGRICULTURE

The challenges ahead for western agriculture could easily comprise the entire program of this Conference. And, as surely as water is wet, agriculture is affected by literally everything under the sun. It is a difficult chore to concisely enumerate or adequately define the multitude of challenges the American food producer faces today. But, life is an endless path of choices, chances and decisions. Possibly the easiest lane to travel is the classic supply and demand route; the life and death path of agricultural prices. But that would place in a position of secondary importance the new, real and dynamic forces affecting modern day food production on a scale much more significant than the layman can imagine.

On the supply side of the food equation, we could talk of the United States producing from only 7% of the world's land area, three-fourths of the world's soybeans, half of the world's corn, or 25-30% of the world's beef, pork and milk. Or, we could talk of California, on 2% of America's farm land and from whose irrigated fields, orchards and vineyards come 40% of the United States' cash receipts for fruits and nuts, 33% of her vegetables and 9.5% of total U.S. agricultural exports. We could go on to the fact that, here in Hawaii, farmers produce 100% of the United States' grown pineapples, but the real point is that present day American food production is the envy of every nation.

We are indeed, fortunate citizens to have the potent and basic agricultural industry that we have. Along this vein, how many have ever

stopped to realize the dynamic impact that both the forward and backward linked elements of production agriculture have upon the United States' economy? Would you believe that our food production industry and its associated processing and transport support systems account for one-sixth of the Gross National Product, one-fifth of our total employment and one-fourth of our export earnings. Amazingly large and largely misunderstood.

Turning to the demand side of our food situation, the pivotal, or ultimate challenge looms as an awesome shadow for the future. Those who dwell on population figures, advise us that in 1977, the world, as we know it, contained approximately 4.1 billion people. By the year 2018, the world will measure 8 billion humans. If it has taken us 1977 years to reach the sustenance level we enjoy today, can we double our food production over the next 40 years to adequately feed twice the number of people we are currently supporting? The challenge is overwhelming but the alternatives are unpalatable!

Using the ultimate challenge of doubling world food production over the next four decades as our foundation, the list of secondary challenges for western agriculture can be developed. I must confine my remarks to the important issues of land use and water policy combined with what I believe to be excessive governmental restraints upon agricultural production. Lesser issues of energy, labor and mechanization will have to rest for awhile. Perhaps with a clearer assessment of our problems, we can more clearly choose the course we must chart to meet the food production goals of the next century.

## LAND USE POLICY

A beautiful, unending panorama of unfenced, lush, green valleys below huge, snow-capped mountain peaks, dotted with thousands of grazing cattle. Seemingly endless miles of gently waving grain fields as far as the eye can see, broken only occasionally by a remote farm or ranch house. These phrases can only be associated with the Western United States as compared to the Eastern United States. Eastern farms are typically small, self-sufficient, family farms of traditional early 1800's compared to the food factories equivalent to Western farms.

Western U.S. agricultural lands developed on a much larger scale than did Eastern and Mid-western farms. There are two major responsible factors for this large scale type of development. First, Western agricultural lands developed 50-75 years after those in the Mid-west and East. Secondly, technological improvements to equipment and tractors made larger scale farming more economic and feasible with less hired labor in areas of fewer inhabitants.

The Reclamation Act of 1902 provided the motivating policy and enabling legislation to encourage the development of the arid West into productive agricultural areas. The law was aimed at the orderly disposal of public lands in the 17 Western United States. Contained within the various provision of the law was an acreage limitation and a residency requirement for those individuals receiving irrigation water from Federally funded projects. The limitation on acreage was 160 acres per person and this concept was based on the Homestead Laws of the late 1800's.

The residency requirement of the law provided that a person must live on or near the property. After a few short years, the residency feature of the law was abandoned as an unworkable concept. The acreage limitation was a limit strictly on ownership--not the size of the farm.

In August of 1977, the U.S. Department of the Interior issued a new set of rules and regulations pertaining to land use and water policy in Federal Reclamation Project areas. They sought to impose 75 year old requirements on modern day agriculture. These new rules and regulations contained revolutionary land reform schemes and direct limitations on the private property rights of property owners. Needless to say, the ire of western agriculturalists and water leaders was raised to the boiling point.

Effectuated parties mustered forces to counter the new regulations. Reduced efficiency, higher food prices, and personal property right infringements were all challenged. So much controversy surrounded the issue that a Federal Court judge finally ruled that the Department of the Interior had to file an Economic Impact Report before the new rules and regulations could take effect.

The Administration relented and agreed to prepare the necessary EIR's. But, again, in April 1978, the Department of Interior issued further regulations that impose a rigid limitation on farming size, restrict leasing, exclude partnerships or corporations from farming in USBR project areas and impose a residency requirement upon farmers.

A list of the Department of Interior's newly proposed restrictions is as follows:

1. Impose a rigid maximum size of 960 acres for each farm.
2. Limit the land a farmer could lease to 320 acres.
3. Allow a family of four to own 640 acres, no more.
4. Regulate where a farmer must live--within 50 miles of his property.
5. Outlaws farm partnerships, corporations and other joint ownerships which are not entirely held by direct family relationships.

If these restrictive measures were to become law, the entire nation would be the loser and the only winners would be the socialist types who do not appreciate our productivity. As a lender to agriculture throughout the West, we sought to show the Department of Interior the inefficiencies and gross unfairness of the new regulations both through Congressional Testimony and Economic Analysis of farming 320 and 640 acre farms in the Westlands Water District in California. A copy of "Financial Aspects of Cotton Production in Westlands Water District," is attached as an appendix to this paper.

In view of the fact that we are entering a period where we must unleash all our resources to double our food production, counter-productive and restrictive governmental regulations are a direct impediment to survival. As pointed out in our economic analysis of farming in the largest USBR project area--Westlands Water District--there are definite economies of scale in farming. For example, a 320 acre cotton farm loses money while a 640 acre farm can be profitable under certain optimal circumstances.

However, in any analysis of optimal size, when you change the inputs of the equation, you change the end result. Therefore, in today's fast moving world, any determination of the magic farm size should be fluid enough to allow for daily changes as commodity prices fluctuate and costs rise.

Any attempt by a political body to impose restrictions upon the American farmer and, therefore, his ability to produce our food, has to be one of the most ill conceived plans I can think of. The consequences of fixing the asset base of our farms will have an immediate and profound impact on our standard of living. Food supplies will be reduced along with food quality. It is certainly clear to me that rewards in a capitalistic society are directly commensurate with opportunity and risks. Whether our politicians know or care about the vagaries of weather, pests, diseases and labor strife in the network of our food production doesn't really matter. What does matter is that arbitrarily fixing the size limit on an industry as viable and dynamic as agriculture, is as absurd as limiting the incomes of everyone in this room from this day forward.

By restricting the size of a farm, the government could also cause the virtual collapse of certain segments within the agricultural industry. For example, given the current economies of scale and assuming the relative costs to be constant, certain crops can be produced on smaller acreages and return the operator a fair profit. These crops, such as almonds and grapes, require an investment of \$4,500-\$5,000/acre versus traditional field crop investments of \$2,000-\$2,500/acre. But what happens to entire segments of agriculture such as grape and almond industry when huge new plantings are forced to develop without regard



for the market? Anyone vaguely familiar with agricultural economics understands the inelastic supply/price situation prevalent in the industry. A very small over supply can cause a very large price decline.

In this case, due to the imposition of an artificial size limit, farmers would be forced to change their cropping programs in order to be profitable. Choosing the Westlands Water District as an example, we can see what might happen to total segments of agriculture if major cropping shifts were forced upon farmers. If 300,000 acres were diverted to almonds and 300,000 acres to grapes, you would literally ruin entire communities and farms from Bakersfield to Chico. California currently has 600,000 acres of producing grapes. Add in a 50% increase in production over a few short years and you can be guaranteed a total market collapse. The same is true in almonds with current bearing acreage of 285,000 acres; another 300,000 acres would simply be more than the market could bear and a market collapse would result.

We are talking about massive economic consequences, not to mention the social dislocations and hardships that would surface. Financial reverberations would be felt by virtually everyone from the field worker to the banker. If anyone thinks massive is an excessive word, simply consider the California grape industry as a \$705 million a year business. The economic impact of this single segment of California agriculture is \$3.5 billion! Our almond industry generates \$170 million in gross sales, F.O.B. ranch, which equates to a \$850,000,000 impact in the economy. Simple arithmetic tells us that by allowing irresponsible bureaucratic decrees to go unchallenged, California's agricultural economy may wretch under a \$4.35 billion blow that would certainly not confine itself to state boundaries.

One of the saddest consequences should these new requirements become law, is the social dislocations which will surely occur. In the large farming area on the Westside of Fresno County, there will be more permanent farm families dislocated than there will be new farms created. Consider the trauma a 55 year old shop or irrigation foreman will experience when his employer of 20 years comes to him and says, "John, I can no longer afford your services! Our government tells me I can no longer farm the way we used to and you will have to move your family out of the ranch house."

There are currently 220,030 acres of excess land under recordable contract in Westlands Water District. If the government can force the 960 acre farm size limitation upon us, then you could expect 230 new farms to be created. We must remember the thrust of the government's actions is to break up our large farms and return as many people as possible to the land--at any cost.

We estimate there are at least 1,500 permanently employed farm worker families dependent upon current farming operations for their livelihoods in the Westlands area. Here is the perfect example of governmental boondoggling and hypocrisy when a land reform scheme makes possible a meager 230 new farms and wrecks the lives of three or four times as many families.

## WATER POLICY

Clearly, water is the vital link in the chain of progress in the Western United States. Western population centers are generally located in arid regions and water must be imported from other regions to sustain the population. Water is also the life blood of agriculture. California's 9 million irrigated acres are totally dependent on man made water systems for their productivity. California food producers utilize 84% of the total water consumed in the state. Water is also a pivotal and delicate political issue both intra and inter state. Consequently, emotions become strained over water transfer studies such as the 1964 proposals for inter-basin water transfer from the Columbia River to the Colorado River System.

Intra state water jealousies are prevalent in California where over two-thirds of the population resides in the driest one-fourth of the state. Therefore, Southern California must depend upon water transfer from Northern California where three-fourths of the state's water originates. Recently, new water developments have been virtually stagnated due to the multitude of Environmental suits filed against dam construction, fish and wildlife habitats, etc.

Water leaders acknowledge that the appropriate lead time for water project development is 15-20 years from conception to completion. The famous California Water Project signed into law in 1960 is still not completed some 18 years later; but, over 85% of the project is operational. However, due to population growth, the project is over committed with respect to available supply and contracted demand. Many water leaders feel that to meet the year 2000 water requirements, California must develop 2-3 million additional acre feet of water.

Currently, with the no growth leanings of many legislators and the Administration in the California State Capitol, the long term development potential of California is threatened. Water quality in the Sacramento Delta has become more important than the assurance of continued water deliveries to San Joaquin Valley farmers. Historical bilateral contracts between water districts and the U.S. Bureau of Reclamation (USBR) have all of a sudden become unilateral. The USBR is now attempting to increase water prices and impose farming conditions upon the districts if they do not sign.

Agriculture's alternatives to State or Federal water is pumping water from the underground or utilizing water via technologies not yet economic or practical, such as sea water de-salinization. The problem with pumping ground water is two fold. First, you may or may not have the ground water to pump. Second, the ground water basins in California's Central Valley for instance are annually overdrafted by 1.5 million acre feet. Overdraft is that water that is removed and which natural recharge from winter snow pack cannot replace. During the drought of 1976-1977, the ground water basins of Central California were overdrafted by 6-7 million acre feet.

Not only is agriculture effected, but whole population centers like Fresno, Madera, Visalia and Bakersfield are also dependent upon adequate ground water to sustain their livelihood and growth. It would be highly unfortunate at some future date to have to choose between water for cities or water for food production. Everybody loses, there are no winners. Ground water overdraft cannot continue in perpetuity. We must develop more water from new sources, currently untapped, to properly provide the fuel (water) for future growth.

There is no such thing as no growth any more than there is a free lunch. Times change with each stroke of the clock and somebody has to produce that "free" lunch. Tough decisions must be made now with respect to damming more rivers to capture excess water. Environmental concerns must take a seat behind that of logical, systematic growth and development or we will face terribly painful times down the road.

Priorities seem to have been juggled by people ill prepared to face the realities of governing our population. Is an adequate food supply to be jeopardized simply to save a rare lizard or toad? Are we to destroy the most efficient food system known to man for a social experiment of land redistribution? These are very real questions posed by actions of state and federal government agencies. The choice of a wrong road could be catastrophic to the future of our country. There must be a logical balance between growth, food production and preservation of the environment.

Somehow, somebody got things all confused when a farmer is pitted against the government over an environmental issue. Heaven knows the farmer is the world's greatest environmentalist or conservationist. He has to be, for the strong earth, clean air and pure water are the tools of his trade. Without them, he is out of business and we are without food.

I have attempted to show you that our land use and water policies may be headed in the wrong directions at the wrong time. Perhaps the answer is better communications, but maybe the answer lies in much less government interference in the business of agriculture. Ever mindful of the need to double our food production over the next 40 years, I believe the solution is obvious.

WEST COAST AGRICULTURE  
PRINCIPAL COMMODITIES 1976  
CALIFORNIA, OREGON & WASHINGTON

(Value in thousands of dollars)

<u>RANK</u>	<u>CALIFORNIA</u>		<u>OREGON</u>		<u>WASHINGTON</u>	
	<u>COMMODITY</u>	<u>VALUE</u>	<u>COMMODITY</u>	<u>VALUE</u>	<u>COMMODITY</u>	<u>VALUE</u>
1	Cattle & Calves	\$1,101,408	Wheat	\$ 168,240	Wheat	\$ 410,543
2	Milk & Cream	1,088,678	Cattle & Calves	156,888	Milk	244,012
3	Cotton	946,280	Hay, all	156,147	Apples	191,250
4	Hay	558,996	Milk	104,651	Cattle & Calves	180,206
5	Grapes	526,556	Potatoes	78,269	Hay	163,284
6	Eggs	398,976	Peppermint	34,650	Potatoes	139,500
7	Lettuce	324,778	Rye, Grass, all	30,357	Barley	48,438
8	Tomatoes, processing	284,734	Onions	26,153	Eggs	47,435
9	Nursery Products	279,930	Pears, all	26,047	Sugarbeets	37,105
10	Flowers & Foliage	255,163	Eggs	24,960	Hops	34,039
TOTAL VALUE of all agricultural production		\$8,900,000		\$1,060,060		\$1,978,794

LIVESTOCK & POULTRY ON FARMS  
JANUARY 1, 1976  
(In thousands of head)

	<u>CALIFORNIA</u>	<u>OREGON</u>	<u>WASHINGTON</u>
Cattle & Calves	5,000	1,440	1,375
Milk Cows	810	91	179
Sheep & Lambs	1,052	330	78
Hogs <sup>1</sup>	133	92	65
Chickens <sup>1,*</sup>	48,269	2,800	5,700
Turkey breeder hens	665	60	N/A
Commercial Broilers <sup>2</sup>	104,950	15,150	15,876

1 As of Dec. 1st.

\* Excludes commercial broilers

2 Production from Dec 1, 1975-Nov.30,1976

NUMBER OF FARMS & LAND IN FARMS  
CALIFORNIA, OREGON & WASHINGTON

<u>STATE</u>	<u>FARMS</u>		<u>ACRES</u>	
	<u>1976</u>	<u>1977</u>	<u>1976</u>	<u>1977</u>
California	64,000	63,000	36,000,000	36,000,000
Oregon	34,000	34,000	19,400,000	19,300,000
Washington	40,000	39,500	16,500,000	16,400,000

AVERAGE VALUE OF FARM REAL ESTATE  
PER ACRE, FEBRUARY 1976

<u>STATE</u>	<u>AVERAGE VALUE/ACRE</u>
California	\$674
Oregon	\$264
Washington	\$385
United States	\$403