

Problems of Adjustment In Southwest Agriculture

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What are some of the important agricultural adjustment problems that plague the Southwest region? They occur within an environment largely peculiar to the Southwest—aridity, altitudinal extremes, sparse vegetation and sparser population, vast public land holdings, tourists and tourism, young but maturing governments, and explosive population and economic growth.

Nevertheless, some of the agricultural problems of the Southwest are like those of the whole United States. It is well, then, to divide any list of southwestern agricultural adjustment problems into two parts—those relatively peculiar to the southwest and those important but not peculiar to it.

I. Agricultural problems and needed adjustments important to the Southwest region but not peculiar to it

The Southwest region shares these problems with agriculture throughout the United States. They are much discussed and much worked on. Hence, let us only list them here without elaboration.

1. Adjusting commercial agriculture to new economic conditions brought on by changing demands and technologies.
2. Adjusting agricultural production to the changing marketing structures for agricultural products especially related to high value, highly specialized products and to meat animals (mainly beef cattle).
3. The impacts on labor intensive types of Southwest agriculture that result from the changing market structure and price for agricultural labor.
4. Problems associated with the burdens and inequities of the real property tax plague Southwest agriculture as they do agriculture everywhere.

Problems of Low Income Groups

5. The Southwest has a sizeable problem of low income rural people—its Indian, early Spanish, and others who are on resource units too small for their adequate support.
6. Finally, like the rest of the country, although much "inventory" research has been done, the southwestern region is greatly lacking in adequate inventories of soils, of natural vegetation, of water, of weather, of minerals, etc. Intelligent planning and programming of private management and of public action programs based on expanded use of the resource base are impossible or grossly inadequate when what we have available is unknown or known but dimly.

II. Agricultural adjustment problems relatively peculiar to the Southwest region

Although the adjustment problems listed above are important in the Southwest, those listed below are of peculiar importance because their solution must be found in the Southwest. We will find it difficult to draw on solutions found in other regions. On these, we're "on our own."

1. Huge public investments in the development of basic economic resources within an environment of rapid growth and change.

Water in the region is the principal recipient of this public investment. The investment may be by "engineering" works or by "biological" manipulation or both. The fabulous California Water Project, the Colorado River development program, including the Central Arizona Project, and the trans-mountain diversions in Colorado are examples of development by engineering works. The Arizona Watershed Program is an outstanding example of water development by biological manipulation.

Raised by such programs are troublesome questions about the role of agriculture in the development activity in comparison to industrial, urban, and recreation uses of the expanded water supplies and the power and power revenues usually

generated thereby. Throughout the region, the question is—"Is agriculture still the bell wether of water resource development or is it now, simply, a wistful bystander enjoying the crumbs from the developmental feast that fall its way in the course of the activity?" And, what if it is? Is this anything that we should be worried about—or should we be worried about only the development being what is "best" for the region?

Adjustments Must Be Made

2. Approaching adjustments in agriculture made mandatory by (a) water mining, (b) industrialization, and (c) urbanization.

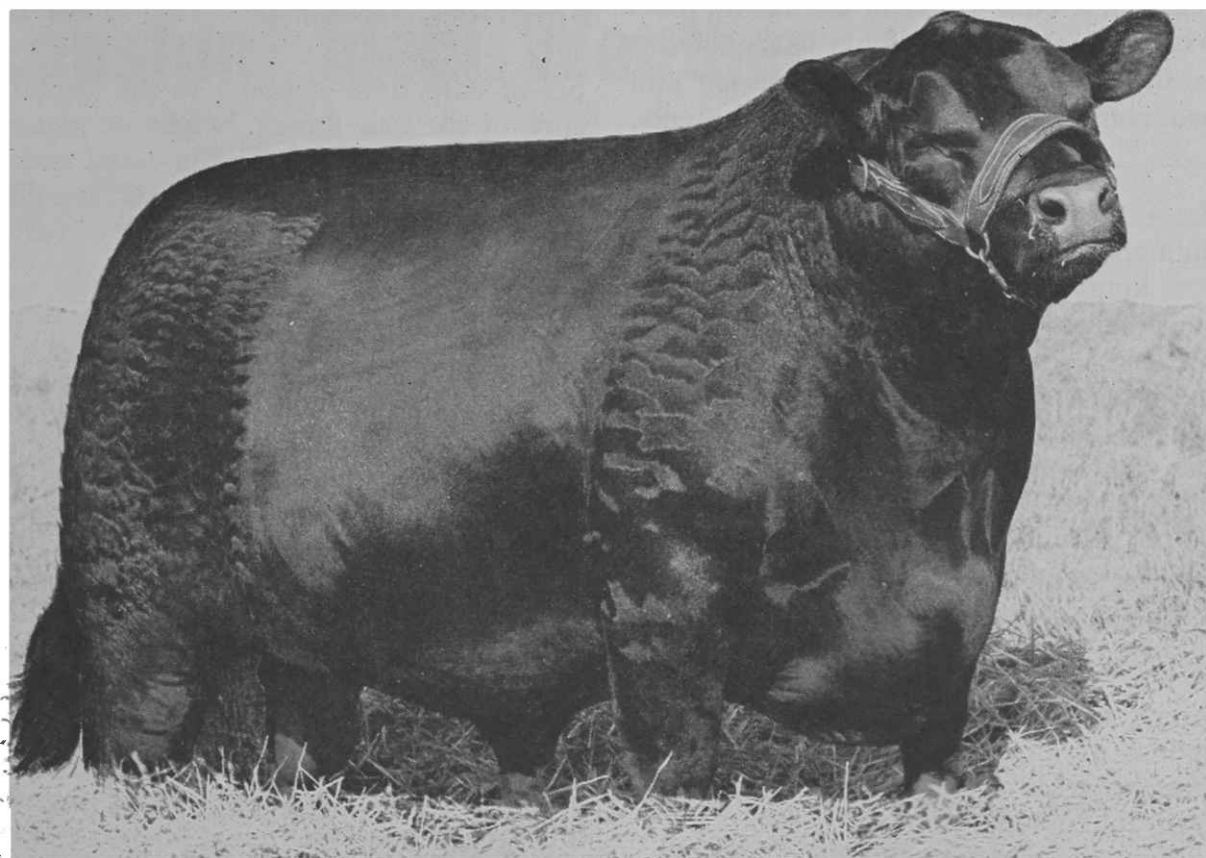
The agricultural adjustments demanded by industrialization and urbanization may be "problems" only from the viewpoint of agricultural sentimentalists. Economically, these adjustments normally will "pay their own way" in that the agriculturalist will not be forced against his economic interest to change or migrate. His interest will be paid for. Agriculture service institutions caught in these situations may not be so lucky—agricultural extension, vocational agriculture, agricultural marketing, processing and supply industries, etc. These activities will find their agricultural base drying up in urbanizing and industrializing areas.

The emerging problem of adjustment to water depletion is quite different. In many areas agriculture has been established on a resource base that includes a stored ground water supply. In many, maybe in most, of these instances, recharge is vastly slower than withdrawals. The consequence is inevitable. The only questions are when, how, and to what degree must the adjustment occur—and must the adjustment be in the dependent agriculture or in the resource base by substituting "imported" flow resource for the depleted fund resource. In many cases, frantic search will be for the latter but I fear that in most cases the final adjustment will lie in the former.

A Peculiar Situation

Peculiarly, this is the only instance of an agricultural industry based, like the oil, lumbering and mineral industries, on an extractive operation with its inevitable accompaniment of economic and social change and instability. The agricultural industry is ill-equipped through experience to deal with this problem because agriculture has been considered the outstanding example of an immortal industry rooted in a perpetual resource. The institutional equipment of the industry is not adapted to an adjustment problem of this kind.

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NEW ANGUS herd sire added to the University of Arizona herd is **Homeplace Eileenmere 425**, bred by **Staley Farms, Liberty, Missouri**. The new UA acquisition was grand champion Angus bull at the Nebraska State Fair and reserve senior champion at the Texas State Fair.

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For example, the mineral, oil and lumbering industries are given tax concessions through "depletion allowances" — not agriculture. The agricultural industry in its own "accounting" procedures does not "depreciate" its underlying land values in anticipation of this "depletion cost" as do other industries that exploit fund resources.

3. The approaching necessity for change in our systems and standards of water rationing, both among users and among uses.

Property in water in the region grew first out of placer mining and then out of agricultural requirements. The vastly increasing demands for water today, however, are for industry, urban, and recreation users and uses. In some states the laws of surface water rights are not significant deterrents to the shift of water to non-agricultural uses. In others they are. In all of the region, the problems associated with surface and ground water relationships and the transfer of water among uses and users demands increasing attention.

Role of Federal Lands

4. The changing role of public, mainly federal, lands as to their management and development, allotment and pricing, retention and disposal.

Public (mainly federal) lands are a dominant feature, at least in area, in all states of the Southwest region. Through-

out the region, they have played an important and in many respects dominant role in the range livestock economy. Consequently, what happens to them, particularly what happens to the policies that govern them, has an effect on the livestock economy throughout the region. The growing demand for lumber products, for recreation (in all its forms including wildlife and "solitude"), for minerals, and for water is changing the use priorities on these areas and thus their role in relation to agriculture — especially grazing — in the region.

Priority of Problems

These, then, are the agricultural problems that demand solution in the southwestern region. All of them are serious; all need solution. If I were going to schedule efforts in the region to find solutions in order of their importance and difficulty, I would schedule the following problems for first attention:

1. **The huge public investment program in the development of basic economic resources;**
2. **The approaching adjustments in agriculture made mandatory by water mining, by industrialization, and by urbanization;**
3. **The approaching necessity for change in the systems and standards of water rationing;**
4. **The problems of adjustment of commercial farming to new economic conditions brought on by changing demand and technological conditions; and**
5. **The problems of adjusting to rapidly changing structures and functions in the markets for agricultural products.**



SIX UNIVERSITY of Arizona students majoring in horticulture have received scholarships of \$500 apiece, awarded by the **Vegetable Growers Association, Phoenix**, through their **Memorial Foundation**.

Award winners this year, shown above, are (left to right) Frank Hunt, Glendale; Don Smith, Tucson; and Arthur Johnson, Yuma.

Below, same order, Thomas Russell, Tucson; Alfred Johnson, St. David; and Floyd Sharp, Mesa.

