California's Farm Products Affected By Foreign Trade
M. E. Benedet

There is no one simple and easy solution to the international trade problem. Under present conditions of world-wide conflicts in ideologies, it would be foolish to base international trade policies mainly upon the possibilities of temporary gains or loss to this or that group. Policies for labor, for business.

Whether we can maintain peace and reasonable opportunity for private business activity will depend very much on what happens economically and politically in the whole group of nations interested in maintaining democratic institutions. If peaceful solutions fail, the ultimate cost in dollars, to say nothing of moral values and human lives, will be so vast as to make any temporary gains or losses seem microscopic.

It is not to be expected that gains or losses can or should be ignored, but only that we pause to consider how we need to be on guard against overlooking things that may make us concern ourselves over local problems. Peace, as our own, particular group.

We have in the United States many industries of great economic value which we can satisfy from within our own region and others which need a very large part of our needs. Many, perhaps most, of the other nations bare economies that are built upon special kinds of products.

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Liquid Manure—Pumps, Tanks and Application Method
John B. Doble

The three inch centrifugal pump designed to handle up to 40 per cent solids without clogging, is widely used in handling liquid manure.

In one type of installation the pump body is seated near the edge of the storage tank and suction pipe with a foot valve is extended into the man. A discharge pipe is provided from the pump to the delivery point.

Another type of installation has the pump runner housing submerged in the bottom of the pit and driven by a long drive shaft which projects upward through the manure. The shaft runs in bearings in the shaft housing and is driven by an electric motor. There is no suction pipe or foot valve on this type pump and the unit is self-priming. The discharge pipe is extended from the pump up over the side of the pit to the desired point of delivery.

It is a three horsepower motor and is used for centrifugal pumps. It is available in a range of power and speed for all sizes of manure pumps.

The storage Tank

The size of the storage tank varies according to the ideas of the individual owner. Installations for the use of liquid manure have been accomplished with the new chemicals for soil application but their full effects on all types of plants, their lasting qualities and their possible penetration through the plants and through the soil are not fully known as yet.

Growers contemplating the use of such chemicals should contact their local agricultural authorities for recommendations.

Ethylene Dichloride

Ethylene dichloride dissolved in naphtha thickens and has proved outstand- ing for the control of wireworms. In 1947, approximately 25,000 acres of wireworm and nematode infected soil, to be planted to large limas, were treated in southern California.

Ethylene dichloride is a colorless liquid, usually of 10% or 30% strength, used as a vehicle in thinner. It is best applied by an applicator which drills the liquid into the soil six to eight inches deep, at 12 inch spacings.

The dosage using the 10% material is two milliliters—one fluid ounce in 20 milliliters—introduced into the soil at 12 inch spacings. The dosage of pure ethylene dichloride for wireworm control is 2.0 gallons per acre but may be varied considerably to suit particular soil conditions.

Some of the newer types of chemi- cals make possible the economical control of wireworms. These yellowish, waxylike worms are the active, larval stages of click- beetles and live for several years. They are especially hungry in the spring of the year when they feed on germinating seeds, or bore into the underground portions of plants. Several years of experimental work have indicated that the material should be applied prior to planting a crop, and because of the volatility of the material it can also be used in hand applicators supplying 3.0 milliliters per shot at 12 inch intervals.

The dosage necessary for wireworms is 450 pounds to the acre which is more than is ordinarily recom- mended for nematode control.
End spot of Valencia oranges showing severe injury in 1934. A second outbreak of spotting down may occur in late April or early May every year. If there is a heavy orchard survey of the trouble was made in 1968 during the summers of 1926, 1931, and 1934. A slight amount of the break occurred in 1947. The greatest drop, very probably plays a part in the drop later in the season. Seven hundred and ninety-five trees were examined. Injured lesions in the advanced stage result in a typical Valencia rind spot, shoulder spot, and breakdown around stem. Twenty-four per cent showed splits and other defects. Losses by insects and injuries were pull out from the tree in various orchard experiments. There were 25% from all other causes, but mainly from the tree itself. The heaviest period of spotting was from May 25 until July 22. On an average, 45 percent of the oranges examined were affected. The week beginning July 26, 1938, was the first of the orchard survey of the trouble was made. The week beginning August 11, 1938, the crop commune for the disease was made. The concentration of carotene in the feed of the first and the second lambs is listed in the following table.

<table>
<thead>
<tr>
<th>Feed</th>
<th>Total Digestible Nutrients (lbs.)</th>
<th>Daily Price (cents)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alfalfa hay</td>
<td>100</td>
<td>3.00</td>
</tr>
<tr>
<td>Alfalfa hay</td>
<td>150</td>
<td>4.00</td>
</tr>
<tr>
<td>Alfalfa hay</td>
<td>200</td>
<td>5.00</td>
</tr>
<tr>
<td>Alfalfa hay</td>
<td>250</td>
<td>6.00</td>
</tr>
</tbody>
</table>

The comparative price is based on the total digestible nutrients for 100 pounds of feed and assuming an average price of $0.30 per ton for alfalfa. With shelled corn quoted at the present time at $0.45 per ton, barley at $0.60 per ton and cottonseed cake at $0.70 per ton, it is easy to see from this table that alfalfa hay is by far the cheapest. Carotene concentrate is a valuable nutrient in feeds as a whole. It is one of the best feeds for poultry. Carotene concentrate is very attractive. The amount of added color needed is relatively low. The concentration of carotene in the feed at this rate is determined. The use of carotene, in amounts at least sufficient to minimize the seasonal fluctuation in the natural color of butter, is a desirable practice commonly employed by the buttermaker. It is well known that colored butter is a desirable practice. The buttermaker is used to stand the product to a shade or tint that is not too strong. It is an attractive product that is not too strong. It is an attractive product that is not too strong.