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sunday business - agri-biz col. - june 5, 1977 - page 1 <<

Agri-Business Column <<

\*BC By Ferdie J. Deering

Agriculture is a utilizer of energy and agriculture is a source of energy. It is big and important in both respects.

Because agriculture utilizes sunlight, land, water, wind, plants and animals, it is a renewable source of energy. Fossil fuels become permanently depleted as they are used.

Agriculture also is a major consumer of fossil fuels, human energy, mechanical and other power. It requires energy to produce energy in the form of food. Agriculture must have essential energy supplies in order to provide people with food.

In his recent messages to the nation regarding energy, ~~PrePresident~~~~xCarte~~ directed attention toward consumers, urban / President Carter / problems and industries. Agriculture received almost no attention, except as it may have been included in other items.

News reports frequently mention home heating and cooling, refrigeration, appliances, entertainment, transportation, comfort and convenience, ~~but~~ but usually overlook energy for food.

Commercial energy news mostly concerns production, imports, prices, divestiture, manufacturing and marketing, but seldom recognizes ~~agricultu~~ either as a major user or major source .  
/ agriculture /  
of energy.

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\*pd

sunday business - agri-biz col.- june 5,1977 - page 2 <<

Agriculture basically is a process whereby plants  
capture solar energy and convert it to usable forms. Only a  
minute fraction of the sunlight reaching a field is used, and  
plants vary widely in efficiency of solar energy conversion.

Yet, this is the most abundant source of energy we  
have, and its potential for expanded use is great on farms.

If and when solar heating and cooling of buildings  
becomes economically practical, it will be used in rural areas.  
Space for panels to collect heat and tanks for water may be  
less of a problem in ~~rural areas. xxxruralxara~~ rural areas.

Use of solar rays to generate electricity through  
photovoltaic cells or by concentrating the sun's heat to ~~power~~  
generators by steam also would find application on farms. / power /

Dry weather generally makes artificial drying unneces-  
sary for most Oklahoma crops, but in the Corn Belt, autumn  
rains and early ~~winter~~ winters necessitate use of large  
amounts of petroleum fuels. So research projects are under way  
to devise more efficient ways of drying crops with solar energy.

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\*pd

sunday business - agri-biz col. - june 5,1977 - page 3 <<

A reader, Foster-Harris of Norman, professor ~~economi~~ emeritus of the University of ~~Oklahom~~Oklahoma, asks: "Why do we not encourage farmers to try raising fuel crops to aid in our current crisis?"

He notes that in the past farms produced most of their own fuel from woodlots and grew feed for their animals. Perhaps they could again do this to a considerable extent.

Certainly, he doesn't imply that farming should revert to horse and mule power, but he has a valid point in observing that we have become too dependent upon non-farm energy.

A prime factor in the ability of the United States to keep food production ahead of population growth has been the shift from ~~anx~~ manual to mechanized agriculture.

During the past 25 or 30 years, we have doubled farm output by reducing manual labor about 70 per cent and quadrupling fossil fuel consumption. ~~Changes need to be made.~~

Increases in fuel consumption for food production have not been confined to farms. More energy is used in the marketing, storage, transportation, processing and preparation of foods. This has given us better quality foods, more efficient production, and has enabled us to enjoy most foods nearly the year-around.

\*pd

sunday business - agri-biz col. - june 5, 1977 - page 4 <<

Our ability to produce large volume of agricultural commodities has enabled us to buy fuel resources in world markets. <sup>^</sup>Gain exports account largely for our international balance of payments needed to pay for imported petroleum.

As a ~~sxx~~ user and as a source of energy, agriculture may hold the key to our future energy supplies. After all, most of our oil wells have been drilled on somebody's farm!

TO BE CONTINUED

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