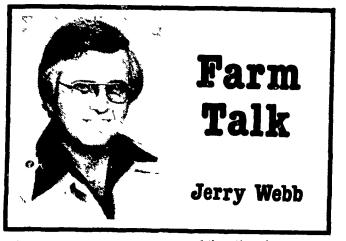
D6-Lancaster Farming, Saturday, June 14, 1980



Some government watchers, particularly the journalistic type, take great pleasure in digging out the seemingly meaningless research projects undertaken by the government.

The Department of Agriculture is quite often the victim of some probing journalist who has spotted a bit of irrelevant research that's costing the poor taxpayer a few thousand dollars. We all read these little gems with great outrage and contempt for the stupidity of those bureaucrats who allow such foolishness to go on.

No doubt some research is done in the Department of Agriculture and in other places that is a complete waste of tax dollars. But maybe some of it is basic research that involves acquiring basic knowledge before any practical application can be developed, and therefore it's necessary even though not understood.

Perhaps there's a parallel between some of the highly technical research that goes on and the games that grown men play. When you think about golf or bowling, or even football, it's totally ridiculous what grown men will do. A probing journalist can do the same thing with research titles and carefully selected words that make a project appear ridiculous.

This whole line of reasoning went through my

mind the other day as I was reading a Department of Agriculture report about research on alcohol injection. It's a project aimed at finding a way to burn alcohol in an internal combustion engine. Rather than mixing it with gasoline to produce gasohol, this technique uses an injector to spray wet alcohol, or aquahol, into the fuel chamber.

In today's fuel minded call this kind of research very relevant and if it has any hope at all, very important. After all, we can grow a variety of agricultural crops that can be converted into alcohol. And if we can figure out how to make that alcohol fuel an internal combustion engine in a cost effective and ecologically safe way, then we have freed some 200 million people from Arabian bondage.

So nobody's laughing at this bit of research and no probing journalist is talking about how much money has been wasted on the project. But wait a minute - that's not the whole story We're talking about a research team that reported its finding in 1948.

That's when William B. Roth and James C. Porter, scientists in USDA's Peoria Reseach Laboratory, applied for a patent on their alcohol-water injector.

Can't your just imagine the total lack of interest in that little project during those post-World War II boom years when gasoline was selling for a tew cents a gallon and we were producing all we needed right here in this country?

But what may have seemed a waste of tax dollars in those days turned out to be about 30 years ahead of its time.

It was so far ahead, in fact, that the patent granted by the U.S. Patent Office has expired.

The researchers, having finished their work, went on to other things, and must have wondered over the years just where they went wrong. Today, however, their research is right back in the mainstream of contemporary thinking.

What they did more than three decades ago provides some of the knowledge needed to burn alcohol in an internal combustion engine. Roth, who still works at

the Peoria lab as a chemist, economy, you would have to now points out that the main advantage of a water-alcohol injection system over gasohol is the use of a lower cost, less gasoline consuming system. The eventual goal could be to replace all gasoline in the combustion system and run on an alcohol-water mix as the primary fuel, with gasoline used only to start the engine.

Research is going on all over the country into all kinds of alcohol fuel mixes and technologies. Companies are springing up to produce gasohol. Farmers are making it right on the farm. And the prospects for some kinds of alcohol fuel injection coupled with the use of gasoline looks promising. But what could turn out to be an important breakthrough must have just looked silly in 1948.

It's somewhat satisfying to know that both Roth and Porter, who is now semiretired and living in New Mexico, are still around to

Joint problems in baby pigs not necessarily nutrition

situations will not correct improve swine performance. the problem and will not he adds.

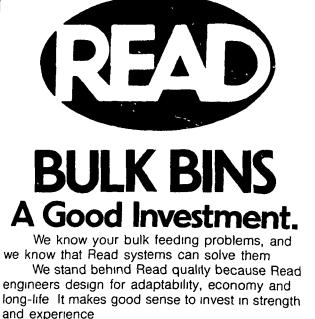
CHICAGO, Ill. - Look for non-infectious or infectious agents as the source of leg problems in baby pigs, advised Dr. James D Hedges, manager of swine research for Wayne Feed Division of Allied Mills. Many times, he points out, the problem is related to these agents, not to nutrition.

The non-infectious problems can be due to poor floor surface, poor confirmation or inadequate bone structure related to genetics.

Injections of lincomycin can help reduce the mcidence of these joint problems, Hedges says. Lincomycin is also the drug of choice when joint problems develop in older hogs.

Hedges recommends injecting hogs for three consecutive days at the first sign of joint problems. Additional calcium and phosphorus in these

see their invention become part of this important energy saving development.



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