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Cattle - Feeding

Ag. Econ. Paper 1968-41
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ASSESSING THE PROBLEM OF FEEDLOT POLLUTION

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WITHDRAWN
JUN 11 1969

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During the past few years pollution from feedlots has received increasing public attention, partly because of the growing number and increasing size of such feedlots, partly because they can be seen and smelled, and partly because an affluent society is becoming more concerned about aesthetic values. The amount of interest and concern is exceeded only by the apparent lack of data that fully define the extent of the problem by geographic areas. But action is demanded. We must move ahead using the best information available and at the same time try to secure the additional data needed.

Some would argue, quite validly, that before we move very far, or set priorities, we need to know the magnitude of the feedlot problem as related to the total pollution problem. But the fact remains that efforts should and probably will be made to work on all pollution problems, even scattered ones when and where they exist. These efforts will decrease pollution a little here and a little there, with the end result being a significant decrease. That's about where we are now. The big question is, where do we go from here?

Let's start with what we need to know to get the problem in proper perspective. A partial listing of the types of data

Presented at Animal Waste Management Conference sponsored by Federal Water Pollution Control Administration, Kansas City, Missouri, February 20, 1969.

that would be useful in assessing the feedlot problem include: how many and what size, how many have impoundments to catch runoff, how the solid and liquid wastes are handled, the slope and length of slope where located, and the types of soil, (open gravelly or tight clay).

In Missouri we do not have this data. We would not actually know the magnitude of the problem if we had it, but we would know much more than we know now. We could identify, in a more accurate manner, those drainage areas having the greatest potential for pollution from feedlots.

What we really need to know is the effect of feedlots on the water quality of a basin. Are there consequences attributable to feedlots that make it important to single out this source as the place to set top priority for pollution abatement programs. To say it another way, are natural events such as the runoff from pasture, timber, cropland or the entire terrain of much greater significance than the feedlots in a given basin?

These are not new questions to the people who have been working on pollution control programs. I know that the Missouri Water Pollution Board is working to get additional data through its quality surveys by basin. These data should be very helpful.

In trying to develop a useful and reliable inventory, it seems to me there are two alternatives open to us in Missouri. One is to take the route of legislation--try to get a state statute on the books requiring permits for all operators who

confine and feed a certain number of animals. Kansas has legislation requiring permits. Obviously all kinds of data can be collected in the process of obtaining the permit. The task of identifying problems and eliminating them falls rather neatly in the hands of the regulatory agency.

But what about states that do not have such legislation? Missouri falls in that category. In such states, how can the inventory be taken, the extent and nature of the problem identified, and a pollution abatement program started immediately? That brings us to the second alternative and it will have to be examined closely to determine if it has merit.

Can pollution control officials and agricultural agencies go direct to the livestock groups, lay out the problem, and get their cooperation in inventorying the problem and adopting pollution control practices? Some Missouri feeders have already voluntarily constructed retention basins aimed at preventing organic wastes from entering a stream.

Is it logical to assume that livestock feeders are interested in policing their own group, in helping set the guidelines to be used in a pollution abatement program, in helping determine effective regulations or restrictions to be imposed?

In recent weeks I have been impressed with the interest and attitude of leaders of livestock organizations toward the pollution problem associated with concentration of animals in feedlots. It is apparent that many are willing to take the steps necessary to construct pollution abatement facilities and to encourage members of their organization to do so. Their biggest question

right now is what needs to be done? More than a little uncertainty exists on the type of pollution abatement facilities that are effective and feasible.

More research, study and new innovation by producers will be required to get the answer here. I am happy to report that these kinds of activities are underway and increasing in number. Even if we don't know all the answers about proper and practical methods to handle feedlot wastes, we know much about what not to do. So this gives us a place to start.

How effective will an educational and voluntary effort of this kind be in reaching the goals established for pollution control? I don't know. Not all producers or feeders are members of organized livestock groups. It is also true that these voluntary organizations do not have tight control over their membership. But I would hasten to point out that millions of acres have been treated with soil conservation practices without statutory requirements. You might reply that there are many more acres to be treated. But, the real question is do we have more conservation using the nonmandatory approach than we would have had with a compulsory requirement? The answer can only be speculative but I am sure that livestock feeders are ready to accept a voluntary educational program long before mandatory regulations are politically feasible. The big question is whether livestock feeders will move fast enough.

Any law to be effective and accomplish its goal must have the support of a majority of the people. For example, Missouri

enacted an automobile inspection law last year to be effective January 1, 1969. The idea sounded good but enforcement has caused widespread dissatisfaction and the people are letting the lawmakers hear about it. Presently, several approaches to resolve the problem are being considered by the General Assembly, all the way from repealing the law to revising the standards.

A lot of education needs to be done about pollution problems and feedlots. The first step is to create more awareness of the problem on the part of the livestock people themselves. This virtually means a change in our culture and this kind of change comes slow. On the farm and elsewhere we have grown up with the concept that the way to get rid of unwanted substances, whether liquid or solid is to put them in a ditch or stream and let the rains take them away. For some years now hog feeders have built lagoons but the overriding purpose has been to get rid of the waste rather than control pollution. Pollution control usually was only a secondary objective. A change in our way of thinking becomes necessary and this is brought about through effective educational programs.

We have begun an educational effort in Missouri in cooperation with our State Water Pollution Board. Two steps that have been taken recently include (1) a seminar with researchers in the Experiment Station and (2) a meeting with agricultural organizations.

The seminar with research faculty and state water pollution officials was held last spring. This was to bring together in

one publication the latest information about all agricultural related pollution problems. A major consequence was to increase awareness on the part of agricultural researchers that pollution is here with us now.

The second activity, and of more significance here, was the recent meeting with about 20 officials representing livestock associations, general farm organizations, fertilizer and pesticide organizations. This group met to discuss the problem and discuss what each organization and the Missouri College of Agriculture could and should be doing about it. From the comments of those attending, it was evident that the majority felt an educational effort should be made. I am sure this increased awareness will cause initiation of a lot of voluntary abatement programs and more producers will be willing to cooperate by providing information. In addition, they will see the need for an overall effort on the part of the livestock industry.

It's a relatively simple but time consuming task to estimate the potential for pollution from agriculture by basin or watershed, provided you can get the county data. I have done this for Missouri at the request of the Water Pollution Board. This information is now available from them. The study compiled data on 53 basins. It included: (1) each basin's potential for erosion (2) the amount of fertilizer applied (3) the insecticides used in corn production (4) herbicides applied to soybeans and (5) the concentration of cattle and cattle feedlots, swine and poultry.

We determined the number of cattle feedlots by drainage basin. For example, we know that the Tarkio River basin has 33 cattle feedlots, feeding 100 head or more annually. The Little Osage basin, which is slightly larger in size, has only 8. Other basins have none even though they may have a much larger land area. But we do not know whether the feedlots in any basin, either individually or collectively, are a significant source of pollution. This is what we need to know. These data do tell us that the potential is greater in some watersheds than others. This is the logical place to start to quantify the problem.

I recommend that when a agency starts a water quality survey, it work closely with agricultural interests. The feedlot operators and the agricultural agencies need to have the facts straight from the agency doing the survey. Tell them what you plan to do. Above all, tell them why. Show them that it isn't some government agency wanting to run roughshod over them and put them out of business. The best way to avoid rumor is to get the facts "straight from the horse's mouth". Some government agencies have the reputation of exercising their powers to the detriment of the individual who is powerless to do anything about it. I am sure this reputation is the result of the action and attitude of a relatively few individuals in government service. I am equally sure that in Missouri we do not have this type of officials in the Water Pollution Board.

The big question about pollution in general and feedlot pollution in particular is whether an education and voluntary effort will be fast enough to meet the goals already established, and effective enough to get the job done in the long run.

Now let me summarize. Earlier I said that there were two alternatives to Missouri and states in a similar position. I suggested that one could be the route of legislation; the other is based on information and education. Actually, I may have given you a false dichotomy. It is not one or the other. Regardless of the route taken, legislation or not, it will be necessary to move aggressively on an information-education program to bring about the change in attitude that is required. I don't see how you can lose by working directly with the agricultural interest involved, informing and involving them in the decision making as much as possible. If this is not enough to complete the task, then legislation will follow. In the meantime, you have gained widespread support from the public and from a surprising number of agricultural leaders as well.