

HANDLING OF ANIMAL WASTES

Improved efficiency in manure handling systems are being developed by agricultural engineers. These involve using disposal lagoons, lagoons with artificial stirring to improve oxidation, conversion to slurry with land application through an irrigation system, development of a plow-furrow-cover technique, as well as improved ways of following the tried and true practice of spreading manure on the land under conditions that would minimize contamination of runoff water.

Our extensive program of veterinary research inspection and regulation have brought transmissible diseases in this country to a remarkably low level. Bovine tuberculosis and hog cholera have nearly been eliminated in this country. We are free of foot-and-mouth disease of our animals, disease which is even now ravaging the cattle of England and many other parts of the world.

THE JOB AHEAD

There is still much to be done in curtailing environmental pollution related to agriculture and forestry. In meeting this task, it is mandatory that there be a minimum of unnecessary and misdirected effort.

It would be folly of the first magnitude to think that handling manure in the barnyard and coping with runoff carrying plant nutrients and sediment could be adequately dealt with as distinct and separate problems.

These problems are best solved at their source on the land.

Agriculture in the United States today is a highly mechanized operation, operating under the pressures of complex cost-price relationships. Any technology that is developed and put to use on the land must fit into a highly integrated management system, using a minimum of labor while producing economic yields of high-quality crops of food and fiber. Environmental pollution controls must be developed in such a manner that full consideration of the impact on agricultural enterprises are fully recognized.

In developing technology with respect to environmental pollutants on the land, we must recognize that air and water are the two main transport vehicles. For example, we must be helpful to land managers and developers in preparing plans that will take into account the characteristics of their soils and topography, climate, and the kinds of enterprises that are profitable in their area.

There are many instances where costly mistakes have been made by suburban developers, industrial companies, and even large farming and forestry operations by their going ahead without having adequate information about such things as the kinds of soils prevailing in the specific area. Soils vary tremendously in the way they take water; in the way they erode under overland flow; the way they shrink and swell, depending on moisture content; their bearing strength under loads; and their susceptibility to deterioration in tilth and tractability.

Maintaining a wholesome environment calls for an entire package of practices and a special competence in relating them to one another and to the needs of the environment. This package includes those practices that will assure this country a continuing abundance of good food and fiber at low cost. At the same time, we must keep in mind the