but the technical and managerial skills needed to use these small doses effectively may be beyond the reach of the average farmer.

If the advantage in using this technology seems to lie with the large farm, it may by a measure of our inadequacy in agricultural extension rather than an example of true economies of large-scale production.

This may be especially true in animal disease control. One of the determinants of the most effective size of firm in poultry production and beef-feeding is a scale of operations large enough to justify the employment of a resident veterinarian. Until modern disease-control techniques are available in do-it-yourself form, advances in animal medicine seem likely to build in an accelerating impetus toward fewer and larger farms. Powerful commercial and professional interests are involved. In this field in particular it is far from clear that a concerted effort is being made to develop an extension program in animal health commensurate with our present abilities to control disease.

The agricultural colleges and universities are not free from fault in this regard. There is a general fascination with bigness in the American cultural endowment. This is mirrored in the focus given to many activities, including the advancement of agriculture. There are many instances of productive interaction between agricultural scientists, experiment station staffs, extension workers, and the operators of the larger commercial farms. It is more difficult to find instances of concerted efforts to perfect agricultural technology in "small packages," suited for use on the Nation's smaller farms.

These smaller farms have in many cases been written off as production units, by agricultural specialists and technicians, and their operators classed as a welfare problem, not an agricultural potential. A part of the concern about the rise of corporate farming is a reflection of an inarticulate but deeply-felt fear that the case against the smaller farms has been judged prematurely. Poignancy is added to this fear by the fact that this judgment is often voiced most persuasively by agricultural agencies and officials whose professional task is to promote agriculture.

The second fear generated by the rise of corporation farming concerns the consequences for the national economy of concentration in agricultural production. The structure of agriculture we have had to date has facilitated the transfer to consumers of the benefits gained from cost-reducing technology in agriculture. It seems unlikely that this transmission to consumers of the benefits of agricultural modernization will be as direct or as significant if the structure of agriculture is characterized by a small number of large producing firms. The history of large producing firms in other industries has involved the capture of a considerable portion of the rewards of technological advance for the benefit of individual firms. It is not possible at present to judge the performance of large agricultural firms by this test, since we do not have adequate statistics nor a long enough period of time in which to study their performance record.

We do know that large firms in agriculture must commit capital in large quantities to slow-maturing production processes. Unless the firm is large enough to control markets and practice a form of internal self-insurance against weather risks, these large capital investments will be high-risk. The understandable desire for risk-reduction may propel large agricultural producing firms toward a degree of rigidity that can retard technological progress, when viewed in the long run.

At the moment, the rapid adoption of new technology is thought to be a characteristic of the large firm. But this may not be true if only large firms dominate the production field. It is this fear that lies behind some of the concern about the spread of corporation farming.

Another concern relates to the structure of marketing and distribution systems that would be associated with a structure of large corporate farms. In the past, at the farm level, agricultural products have largely remained undifferentiated. There have been almost no "brand names" that carried back to the producing farms. With large corporations in the farming business, this is almost sure to change. We can already see the development of large-scale expenditure on advertising campaigns designed to create the illusion of differentiated products produced from large farms. These products in fact may be little different from the same class of products produced on other farms. Heavy expenditure on advertising to create the illusion of differentiation is a pronounced characteristic in breakfast foods, soap, detergents, and other fields.

If the trend toward bigness in agriculture is accompanied by increasingly