Several years ago, and even during the period of agricultural expansion in the Great Plains, certain individuals in the Department of Agriculture and outside, became conscious of what they termed pathological farming areas. For the most part, these areas had recently passed through the pioneering and promotion stages and were on their way to become what we now term problem areas. Although the pathological case of a few years ago and the problem area today are not identical, the consideration given each is similar. The pathological case was examined, the diagnosis made, and the prescription written. The prescribed remedy was usually some type of adjustment which very likely would require additional work on the part of the farm operator. A sustaining stimulus in the form of credit was ordinarily given whether the prescribed remedy was or was not taken.

In some instances, the situation was ameliorated; in others, a combination of circumstances worked against any improvement, and the sick areas have become problem areas. The areas are now older, and in some cases deterioration has gone so far that we are questioning their ultimate recovery. Agricultural research now has the task of determining whether or not land in certain areas should be continued in crop production or diverted to other uses.

A thorough study of crop adaptability and land use made in any one of the so-called problem areas would require the interpretation of a wide range of sciences related to agriculture. Luckily, the student of land use has the practical application of this knowledge to draw from, and it is in the practical application of agricultural knowledge and with its economic consequences that he is most concerned.

If agricultural research could tell us, for each soil type in each climatic region, the particular crops to be grown, and how the crops could be cultivated to give highest dollar return consistent with good farming practice, it would simplify the problem of using land resources.

All farming areas have some land-use problem, but in most sections, long farming experience has led to established cropping systems and regular practices of disposing of crops either directly or through livestock, and the problems are, maintaining fertility and keeping income even with increased and operating expenses. In those areas where no one questions the profitableness of crop production as compared to grass or forestry, the problem becomes one of technique in producing crops, maintaining crop yields, and disposing of products rather than one of land use. But in other areas, where either deficiency and uncertainty of moisture or lack of soil fertility so reduces crop yields that customary practices do not pay operating and living expenses to the farmers, the question is one of deciding whether or not the land does have a value for crop production. In these areas, which are truly marginal for crop production, lay the problem area in regard to crop adaptation and land use.

The physical evidence that land is being or has been misused is presented by stretches of barren land, areas of abandoned fields, and severe water or wind erosion. In many localities, this evidence is so clear that the visible destruction would condemn the land for cultivation and suggest a change in land use. On the other hand, physical deterioration may not be evident, but the suggestion of misuse may be seen in dilapidated buildings, or may be indicated by sheriff’s sales.