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Review of Marketing and Agricultural Economics

Volume 37, 1969

Issue 2

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RECENT DEVELOPMENTS IN FARM PLANNING

INTRODUCTION

Over the last decade the science of farm management has been profoundly influenced by two related developments: the increasingly quantitative orientation of economic theory and analysis, and the gigantic strides in computer technology. Amongst the principal problems studied in farm management research are micro-level allocation problems, which reach their fullest complexity and significance with the problem of whole-farm planning. This issue of the *Review* is devoted to a group of three papers discussing some important recent developments in this field.

In surveying the historical development of farm planning analysis one might distinguish between two lines of endeavour: firstly the investigation of purely *methodological* problems, secondly the refinement of the basic *conceptual* model of the agricultural firm and of its entrepreneurial characteristics to which the planning methodology is applied.

The three papers in this issue appear at first glance to fall entirely into the methodological category. In fact, however, they illustrate the fact that the distinction between method and concept is by no means sharp. The advances contained in the methodologies reported herein enable significant conceptual refinement in the basic model of the agricultural firm to be made. In addition new methodological problems are thrown up whose solution will be essential before further progress will be possible.

The models developed in these three papers have two characteristics in common. Firstly, they share a common basic dependence on the representation of the farm's production structure by means of a set of linear inequalities. This outcome of the well-documented transition from "neoclassical" to "modern" in the theory of the firm endows farm planning models with enormous empirical power and flexibility at no cost—indeed in many respects at some gain—in descriptive realism. Secondly, the models are all directed at a relaxation of the assumption of a single profit maximizing objective on the part of the farmer, an assumption which has for so long been central to farm management theory. It is clear that this assumption has remained of such importance during the abovementioned theoretical transition because of the ease with which profit maximization fits into linear programming, the premier analytical tool of quantitative farm management.

Thus it is expected that the reader will see the first of these similarities as identifying the models presented herein with the known state of the arts in farm planning analysis, and the second as signalling their departure from the traditional road.

THE EDITOR