Net returns, on irrigated farms with special reference to Huntley Irrigation Project
by Allen A Hyde

A THESIS Submitted to the Graduate Committee in partial fulfillment of the requirements for the Degree of master of Science in Agricultural Economics at
Montana State University

Abstract:
The object of the present analysis is to determine the average income available from the farms on the Huntley Project from which construction costs could be paid* The analysis is based on a sample of 121 farms, selected on the basis of available records for the five-year period, 1932-1936* The accuracy of the analysis, as it pertains to the Huntley Project, is limited because of the lack of information. The development of a method of analysis applicable to the date available was a major problem of the present study. The data available for the Huntley Project were supplemented by data taken from studies made on irrigated land in other sections of the country* For the purpose of giving a more detailed picture of the farms in relation to their ability to pay something toward construction costs, than could be shown from an average net return for all farms, the farms were also divided so as to show the effect of type of farm, size of farm, and tenure of operator, upon the amount of returns available from which construction costs could be paid.

The farms in the sample studied showed an average net return of $230.55 per farm or an average net return of $3.06 per irrigable acre above cash operating expenses, taxes, depreciation, operation and maintenance, and family living expense. From this amount, payments had to be made on aa average mortgage indebtedness of $544.44 per farm or of $7.34 per irrigable acre and also on construction costs. The breakdown by type of farm, size of farm, and tenure of operator slows that the farms growing beets as the main source of income had a larger net return from which construction costs could be paid than did farms growing other crops as their main source of income; that farms falling within tho groups 100-139.99 acres and 140-179.99 acres showed a higher average net return per irrigable acre from which construction costs could be paid then any otter alee group, and; that owner operated farms and part owner operated farms had more than three times as high a net return par irrigable acre from which construction costs could be paid as did the renter operated farms.

Although the average faro on the Huntley Project did not produce staple income to supply a fair rate of interest and an operator's wage, for the period 1932-1936, it did produce enough income to meet the cash operating, overhead, anti family living expense, and leave eom income from wiiich construction costs could be paid.

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NET RETURNS, ON IRRIGATED FARMS, WITH SPECIAL REFERENCE TO HUNTLEY IRRIGATION PROJECT

ABSTRACT

The object of the present analysis is to determine the average income available from the farms on the Huntley Project from which construction costs could be paid. The analysis is based on a sample of 121 farms, selected on the basis of available records for the five-year period, 1932-1936. The accuracy of the analysis, as it pertains to the Huntley Project, is limited because of the lack of information. The development of a method of analysis applicable to the data available was a major problem of the present study. The data available for the Huntley Project were supplemented by data taken from studies made on irrigated land in other sections of the country.

For the purpose of giving a more detailed picture of the farms in relation to their ability to pay something toward construction costs, than could be shown from an average net return for all farms, the farms were also divided so as to show the effect of type of farm, size of farm, and tenure of operator, upon the amount of returns available from which construction costs could be paid.

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Although the average farm on the Huntley Project did not produce ample income to supply a fair rate of interest and an operator's wage, for the period 1932-1936, it did produce enough income to meet the cash operating, overhead, and family living expense, and leave some income from which construction costs could be paid.

I. INTRODUCTION

Irrigation in Montana

Montana has 93,523,000 acres of land, of which 1,594,912 acres are irrigated. This is 1.7 per cent of the total land in the state and 8 per cent of the irrigated land in the United States. Twenty-seven per cent of the farms and ranches of the state were partly or entirely irrigated in 1934. This 27 per cent of the ranches and farms made homes for 33 per cent of the people on farms in the state. Thirty-six per cent of the value of all land and buildings are on irrigated land in Montana. Thus, with 33 per cent of the farm population, and 36 per cent of the value of land and buildings on 1.7 per cent of the land in the state, we can conclude that irrigation is important to Montana. There is dry land in the state which produces a satisfactory income, but since much of the dry land can not be depended upon each year as a source of income, the irrigated land in the state is considered the stable element in Montana's agriculture. The construction of irrigation projects has not been based on adequate data, so that many projects have proved to be economically unsound. Because irrigation is important to Montana, an effort should be made to develop methods by which irrigation projects can be maintained on a paying basis.