



The Montana farm mechanics program in vocational agriculture
by William Joseph Welker

A THESIS Submitted to the Graduate Committee in partial fulfillment of the requirements for the degree of Master of Science in Agricultural Education
Montana State University
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Abstract:

No doubt the sponsors of the Federal legislation that made vocational agriculture possible intended that the home farm mechanical activities were to be a part of the vocational agriculture supervised practice program* This study is concerned with the amount of carryover of the present farm shop instruction to the home farm* It also intends to note the type of farm shop course of study that gives the greatest carryover as well as to make other recommendations for improvement.

Data used in this study came from other studies, from 11 Montana vocational agriculture instructors, who were rated as being above average shop teachers and from 364 of these instructors' students' These data indicate the type of farm shop instruction deemed important by the instructors, the mechanical jobs the students performed in the school shop and at home, how the 112 juniors and seniors learned to do the jobs they do at home, and the home farm shop facilities available to vocational agriculture students.

The carryover of school shop instruction to the home farm is not great for 4 reasons. First, the type of farm shop work taught in the school is not the type used on farms. Second, the amount of home farm shop supervision that vocational agricultural students receive from their instructors is too small to be very effective. Third, instructors have not encouraged farm shop supervised practice, either as a part of the student's agricultural project or as a separate supervised practice. Fourth, there is no evidence to indicate that a home farm shop improvement program is one of the major objectives of farm mechanics instruction.

The home farms of vocational agriculture students do not have adequate farm shop buildings for the students to work in, but the students do have access to a fairly adequate supply of shop tools. Instructors recognize that they are not fully prepared to teach all of the desirable types of farm shop and that the farm shop supervised practice problem should receive more of their attention.

Means of improving the Montana farm mechanics program will undoubtedly, at first, be concerned with the reorganization of the course of study, more adequate teacher selection and preparation, and a definite attack on the problem of a farm mechanics supervised practice program. Other means of improvement will give consideration to the extension of the farm mechanics part-time and evening school program, refresher courses for instructors that are now in the field and an extension of the research program in Agricultural Education.

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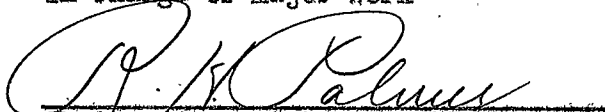
Master of Science in Agricultural Education


at

Montana State College

Approved:


In Charge of Major Work


Chairman, Examining Committee


Chairman, Graduate Committee

Bozeman, Montana
June, 1941

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FOREWORD

"Wisdom consists in knowing what to do.
Skill consists in knowing how to do it.
Virtue consists in doing it."

David Starr Jordan

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Data used in this study came from other studies, from 11 Montana vocational agriculture instructors, who were rated as being above average shop teachers and from 364 of these instructors' students. These data indicate the type of farm shop instruction deemed important by the instructors, the mechanical jobs the students performed in the school shop and at home, how the 112 juniors and seniors learned to do the jobs they do at home, and the home farm shop facilities available to vocational agriculture students.

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PART I. INTRODUCTION

General Statement

"Vocational education in agriculture has for its primary aim 'To train present and prospective farmers for proficiency in farming'." 1/ Proficiency in modern farming must include more than mere ordinary ability to work with tools and machine equipment. Today's farmer has a relatively heavy investment in tools and machine equipment as well as in farm buildings and farm improvements. Due to continued improvements in farm equipment, rapid extension of rural electrification, and greater use of engineering conservation practices 2/, the prospective farmer will, in all probability, have an investment in tools and machine equipment that is greater than the farmer of today. The high school vocational agriculture classes with the accompanying farm shop instruction were made possible by the Smith-Hughes Act of 1917 3/ and 1924 and later supporting acts. There are 308,325 of the nation's prospective farmers training for proficiency in farming by attending high school vocational agriculture classes. 4/

Section 10 of the Smith-Hughes Act clearly states that vocational agricultural education shall meet the needs of persons over 14 years of age who have entered upon or who are preparing to enter upon the work of the farm

1/ Cook Scranton, and McColly, "Farm Mechanics Text and Handbook", The Interstate Printers and Publishers, Danville, Illinois, 1937, p. 5, Preface.

2/ "Technology on the Farm", a special report of an interbureau committee and the Bureau of Agricultural Economics of the U.S.D.A., U.S. Government Printing Office, Washington, D. C., 1940, pp. 42-43.

3/ Public. No. 347, Sixty-fourth Congress, S. 703.

4/ Statistical Release No. 5, Federal Security Agency, U. S. Office of Education, Washington, D. C., March 10, 1941.

