A program manual for supervised occupational experience programs in vocational agribusiness and natural resources was prepared to set down guidelines and policy for the program at Dickinson Area Vocational High School, North Dakota. Because of the new concept initiated by the policy statement, it was decided to field test the manual in six other high schools in the State. At the end of the 1975 school year, an evaluation of the manual was made. Because of different situations found in the various schools, some changes were made in the manual, and it was recommended as a guideline for establishing a program in other schools subject to individual modifications. The revised program manual presents the objectives and requirements of the supervised occupational experience program in agriculture, along with program descriptions and course content. The manual includes the following sample exhibits for use in the program: vocational agriculture supervised farming program agreement, plans for productive enterprises, Dickinson Area Vocational High School training agreements and plans for supervised occupational experience programs (both on-farm and agribusiness placements), individualized instruction program, and improvement project plans. (Author/MP)
A Proposal to Field Test a
Supervised Occupational Experience Manual

NORTH DAKOTA
RESEARCH COORDINATING UNIT
STATE BOARD FOR VOCATIONAL EDUCATION
STATE OFFICE BUILDING
BISMARCK, NORTH DAKOTA 58501

U.S. DEPARTMENT OF HEALTH,
EDUCATION & WELFARE
NATIONAL INSTITUTE OF
EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL NATIONAL INSTITUTE OF EDUCATION POSITION OR POLICY
The research reported herein was performed pursuant to a grant with the Office of Education, U. S. Department of Health, Education, and Welfare. Contractors undertaking such projects under Government sponsorship are encouraged to express freely their professional judgment in the conduct of the project. Points of view or opinions stated do not, therefore, necessarily represent official Office of Education position or policy.
PROGRAM MANUAL

SUPERVISED OCCUPATIONAL EXPERIENCE PROGRAMS

VOCATIONAL AGRI-BUSINESS AND NATURAL RESOURCES

DICKINSON AREA VOCATIONAL HIGH SCHOOL

DICKINSON, NORTH DAKOTA

June 1975

Prepared by: Dale L. Roemmich, Instructor

Submitted by: Ted Renner, Vocational Director
A policy statement concerning the Supervised Occupational Experience Programs for Vocational Agriculture/Agribusiness at the Dickinson Area Vocational High School was prepared to set down guidelines for the operation of the SOE program. This manual outlined objectives and philosophies of the SOE Program and described options by which students enrolled in Vocational Agriculture could obtain additional credit for participating in the SOE Program.

Because of the new concept initiated by this policy statement, a proposal was written to field test this manual in a series of schools of various enrollments throughout the state of North Dakota. These schools, selected by the State Supervisor for Vocational Agriculture, were:

- Enderlin High School
  Enderlin, North Dakota  58027
  40 copies

- Lisbon High School
  Lisbon, North Dakota  58054
  90 copies

- Rugby High School
  Rugby, North Dakota  58368
  75 copies

- New Salem High School
  New Salem, North Dakota  58563
  50 copies

- Minot High School
  Minot, North Dakota  58701
  160 copies

- Watford City High School
  Watford City, North Dakota  58854
  50 copies

Each school was provided with enough manuals for the 9th and 10th grade students enrolled in Vocational Agriculture. It was decided by the instructors involved that it would be useless to provide the manual for seniors and of doubtful value for juniors.
At the conclusion of the school year, an evaluation meeting was held to evaluate the SOE manual. During the course of this meeting, some modifications and improvements were recommended that have been incorporated into the revised program manual. It was also felt, because of the different situations encountered in each school, that the manual would serve as a guideline for establishing such a program in other schools around the state and that these schools would modify it to suit their individual needs.

The instructors felt that the manual helped to create more interest in the SOE Program and because of its nature, helped to justify the summer contract of the instructor by giving him a definite purpose for summer visitations to the students.
INTRODUCTION

According to the pattern of instruction for vocational education in agriculture starting with the Smith-Hughes Act, there must be directed or supervised practice or experience in agriculture. There can be no adequate training in agriculture that does not have its foundation in participation in the tasks for which the abilities are needed. Not just any participation in these tasks will do. Participation may be miseducative; it may be of the wrong kind. Through it, further learning may be arrested or distorted; one may learn errors, poor performance, or wrong procedure. For these reasons and others, students must have experience programs and supervising and participation of the learners by the teachers is necessary.

Experience programs are the foundation stones in our instructional program. It is the real fabric of training people in agriculture. Truthfully, we cannot be happy in our work unless we feel the importance of experience programs and push for quality in them.

The test of the decade ahead is wrapped up in how deeply we believe in our students having experience programs. Where there is no vision, the people perish, where there is vision, there is life, growth and happiness.

Outside pressure has been and will continue to be brought to bear by administrators, other teachers and lay people to place less emphasis on the experience programs in agriculture, but we must develop our "inside braces" and stick to the basic philosophy of vocational education in agriculture. This must be kept clearly in mind if we are to improve our present program and develop sound new programs in vocational agriculture.

Unless we do some recommitting of ourselves to students having good, sound experience programs for all students enrolled in agri-business education, much of the gain of half a century in vocational agriculture may be lost. The basic philosophy of vocational agriculture has been largely responsible for the success of our programs from the start. The best defense is a strong offense.

(from "Standards for Supervised Occupational Experiences in Agriculture" by Harold R. Binkley, Teacher Education, University of Kentucky)
I. General

1. Definition of Supervised Occupational Experience Programs (SOE) In Agriculture

"SOE Programs include all agricultural experiences outside the classroom which are conducted by students enrolled for instruction in Vocational Agri-Business and Natural Resources, which have educational value and which are orientated toward the student's vocational objective and for which a department of Agri-Business and Natural Resources provides organized instruction and supervision.

2. Aim or Purpose of the SOE Programs

SOE Programs are established to provide realistic and educational experiences in the vocational choice of the student in the field of agriculture. The SOE Programs should also serve as a basis for planning and carrying out classroom instruction in Vocational Agri-Business and Natural Resources.

3. Objectives of the SOE Programs

A. To prepare students for gainful employment in an occupation which is of interest to them.
   1. to help students select an entry occupation based on exploration experiences and on analysis of their interests, aptitudes and experiences.
   2. to select and provide instruction in competencies indicated as needed by the student to gain entry into the occupation of his choice.
      a. through occupational experiences at training stations or through carrying out productive or improvement projects.
      b. through specific related instruction in the classroom, school shop, greenhouse or laboratory.
   3. to help students explore career opportunities and further educational needs.
   4. to help students establish a start in farming or to gain employment in an agricultural occupation.

B. To help students develop personal and social qualities which enable them to make satisfying personal and occupational adjustments.

C. To help students develop an appreciation for and understanding of the social and economic aspects of work, employment and productivity and their relationship to the individual's occupational, personal and social welfare.
4. Activities that may be included in SOE Programs in Agriculture

A. **Productive Projects** - business ventures for learning and earning conducted by the students enrolled in vocational agri-business and natural resources as a part of their instructional program under the supervision of the instructor of vocational agri-business and natural resources.

B. **Improvement Projects** - ventures for learning and to make the home a better place to live and work conducted by the students enrolled in vocational agri-business and natural resources as a part of their instructional program under the supervision of the instructor of vocational agri-business and natural resources.

C. **New Occupational Skills in Agriculture** - jobs carried out to develop specific competencies which are not a normal part of the students productive and/or improvement projects.

D. **Off-Farm Placement** - for persons seeking employment in the field of agriculture and who wish to gain "on-the-job" experience under the supervision of Dickinson High School.

E. **Farm Placement** - for persons who lack opportunities at home to develop competencies needed to prepare for agricultural occupations of their choice. Farm Placement is to develop competencies normally considered a part of production agriculture.

F. **Natural Resources and Environmental Protection** - ventures for learning, for conserving the resources with which the agriculturists work, and for making the environment in which we live more healthful and livable.

5. SOE Program Requirements to be met by all students enrolled in Vocational Agri-Business and Natural Resources.

A. All students enrolled in vocational agri-business and natural resources must carry out a record system listing new occupational skills learned in relation to their occupational objective. They must develop a minimum of ten during the school year.

B. All students, in addition to the above requirement, may have the option of enrolling in the SOE Program for additional credit with the following options available:

1. **Production Agriculture** - 1/4 credit
   
   Pre-Requisite - must have completed Vo-Ag II or Hort I
   Records must be kept and turned in by December 31
   Must have a productive work load of 3 work units for the first year, 6 work units for the second year, 9 work units for the third year and 12 work units for the fourth year for which the student has complete ownership or managerial control
   Must have signed agreement between the student and parent
2. **On-Farm Placement**

   - 1/4 credit

   Records must be kept and turned in by December 31
   Agreement between the student and the employer must be signed
   before the program is approved
   Minimum requirement is 160 hours of work

3. **Agri-Business Placement**

   - 1/4 credit

   Records must be kept and turned in by December 31
   Agreement between the student and the employer must be signed
   before the program is approved
   Minimum requirement is 160 hours of work

4. **Individualized Instruction Program**

   - 1/4 credit

   Must attend 40 hours of class instruction arranged by
   independent study
   Must complete all assignments by December 31 and keep a record of
   all activities

5. **Supervised Occupational Experience**

   - 1/4 credit

   Must complete a minimum of 2 improvement projects
   Must complete a minimum of 15 new occupational skills
   Records must be kept and turned in by December 31
   May also include any productive project or placement project
   where minimum hours are not attained or work units met
   Must have worked 120 hours minimum in any combination of the above

6. **Work Experience Program**

   - _____ credit

   The school may provide release time during the regular school day
   for students to obtain on-the-job training. Individual requirements
   and credit will be determined by the individual school involved.

6. **Relationship of SOE Programs to in-school instruction in Vocational Agri-Business and Natural Resources.**

   A. The related school instruction will be organized and planned so as to
   provide the information and experience necessary that is not taught on the
   job and is essential for students to progress in the various occupations
   they wish to pursue.
7. Supervision of the SOE Program by the Instructor
   A. The instructor of Vocational Agri-Business and Natural Resources shall be the coordinator for the SOE Programs in Agriculture.
   B. All SOE Programs shall have the approval of the instructor.
   C. The instructor will have an organized plan for student visitations on their SOE Programs to provide timely instruction and supervision.
   D. Supervision and instruction time for the SOE Program will be allowed for in the instructor's teaching schedule.

8. Relationship of the SOE Program to the Occupational Objective of the Student.
   A. The SOE Program shall contribute to the student's proficiency in the area of the occupational objective of the student.
   B. Under special conditions, students will be allowed to carry on an SOE Program outside the area of their occupational choice.

   A. All SOE Programs will be accompanied by plans which have the prior approval of the instructor
   B. Approved plans for the SOE Program are to be entered into the student's planning and record book

10. Records of the SOE Program needed by the student.
    A. All students will keep records on the SOE activities they carry out in an approved planning and record book and in a manner prescribed by the instructor.

11. The relationship of the advisory committee to the SOE Program
    A. The Advisory Committee for the SOE Program shall be the Advisory Committee for Vocational Agri-Business and Natural Resources.
    B. The Advisory Committee shall aid the SOE Program by:
       1. suggesting improvements
       2. evaluating SOE Programs
       3. giving their approval of the program

12. Agreements needed for SOE Programs
    A. Before beginning an SOE Program, an agreement must be drawn up and signed by the student, parent, instructor and employer if the student is placed for experience.
    B. The agreement should cover all areas concerning experiences to be gained, student and employer responsibilities, salaries, working conditions and expenses that might be incurred.
Program Descriptions

1. Production Agriculture - 1/4 credit

Objectives:

1. to develop competencies necessary for those students pursuing a career in production agriculture.
2. to develop managerial abilities and responsibilities necessary for assuming ownership of a farm or obtaining a job as a farm manager or skilled worker.
3. to develop competencies necessary for those students preparing for a career other than production agriculture.
4. to develop the ability to keep accurate and meaningful records.

Course Content:

A minimum work load of 3 work units for the first year, 6 work units for the second year, 9 work units for the third year and 12 work units for the fourth year for which the student has full ownership or managerial control based on the following scale:

<table>
<thead>
<tr>
<th>Item</th>
<th>No. of Work Units</th>
</tr>
</thead>
<tbody>
<tr>
<td>dairy cows</td>
<td>7.0 /cow</td>
</tr>
<tr>
<td>other dairy cattle</td>
<td>1.2/head</td>
</tr>
<tr>
<td>beef breeding cows</td>
<td>1.5/head</td>
</tr>
<tr>
<td>beef feeders</td>
<td>.12/cwt.</td>
</tr>
<tr>
<td>hogs-complete</td>
<td>2.5/litter</td>
</tr>
<tr>
<td>hogs-finishing</td>
<td>.06/cwt.</td>
</tr>
<tr>
<td>hogs-weaner pigs</td>
<td>1.4/litter</td>
</tr>
<tr>
<td>sheep-farm flock</td>
<td>.60/head</td>
</tr>
<tr>
<td>lambs-feeder</td>
<td>.30/head</td>
</tr>
<tr>
<td>chickens-layer flock</td>
<td>5.0/100</td>
</tr>
<tr>
<td>broilers</td>
<td>.20/cwt.</td>
</tr>
<tr>
<td>labor off the farm</td>
<td>1.0/$20</td>
</tr>
<tr>
<td>diverted acres</td>
<td>.20/acre</td>
</tr>
<tr>
<td>small grains</td>
<td>.30/acre</td>
</tr>
<tr>
<td>corn for grain</td>
<td>.55/acre</td>
</tr>
<tr>
<td>corn for silage</td>
<td>.80/acre</td>
</tr>
<tr>
<td>haylage</td>
<td>.40/acre</td>
</tr>
<tr>
<td>alfalfa hay</td>
<td>.40/acre</td>
</tr>
<tr>
<td>other hay</td>
<td>.20/acre</td>
</tr>
<tr>
<td>sweet corn</td>
<td>5.0/acre</td>
</tr>
<tr>
<td>truck gardening</td>
<td>10.0/acre</td>
</tr>
</tbody>
</table>

Requirements:

Must have completed Vo-Ag II or Hort I.
Records must be kept and turned in on December 31
Must have signed agreement between students and parent or employer
2. On-Farm Placement

1/4 credit

Objectives:

1. To develop competencies necessary for those students pursuing a career in production agriculture but who do not qualify for the production agriculture option nor have the opportunity to pursue this career choice by any other productive type enterprises.

2. To develop managerial abilities and responsibilities necessary for assuming ownership of a farm or obtaining a job as a farm manager or skilled worker.

3. To develop competencies necessary for those students preparing for a career other than production agriculture.

4. To develop the ability to keep accurate and meaningful records.

Course Content:

The student must be employed either full or part-time for a minimum of 160 hours on a farm. The student, working on that farm, must be given the opportunity to learn and expand on his experiences and not remain stagnant with very minimal and repetitious work. He must have the opportunity to put into practice the theoretical skills that he has learned in the classroom and to obtain new experiences that would be unavailable in the classroom.

Requirements:

Records must be kept and turned in by December 31
Must have signed agreement between student, parent, and/or employer.
Must have completed 160 hours of work placement.

3. Agri-Business Placement

1/4 credit

Objectives:

1. To develop competencies necessary for those students pursuing a career in an area other than production agriculture.

2. To develop managerial abilities and responsibilities necessary for assuming ownership of an agriculturally related business or as a skilled worker in the field of agriculture.

3. To develop competencies necessary for students preparing for the field of production agriculture who may not be able to obtain suitable experience elsewhere.

4. To develop the ability to keep accurate and meaningful records.
Course Content:

The student must be employed either full or part-time for a minimum of 160 hours in an agriculturally related business. The student, working in that business, must have the opportunity to learn and expand on his experiences and not remain stagnant with very minimal and repetitious work. He must have the opportunity to put into practice the theoretical skills that he has learned in the classroom and obtain new experiences that would be unavailable in the classroom.

Requirements:

Records must be kept and turned in by December 31.
Must have signed agreement between student, parent and/or employer.
Must have completed 160 hours of work placement.

4. Individualized Instruction Program - 1/4 credit

Objectives:

1. to further develop, by providing specific learning opportunities, those competencies needed to pursue a career in agriculture.
2. to allow the student the freedom to explore specific areas within the field of agriculture, under the guidance of the instructor on an individual basis.
3. to provide for greater learning opportunities by providing instruction on a timely basis.

Content:

The student and instructor must set up a program, allowing for 40 hours of instruction or contact time, which will coincide with the occupational objective of the student and his SOE Program. The program will be adapted to meet the individual needs of that specific student.

Requirements:

Must attend 40 hours of instruction or contact time arranged by independent study.
Must complete all assignments and keep a record of all activities (for example) a 3-5 page paper outlining experiences learned and their impact on the SOE Program and the student's occupational objective. In addition, there will be small assignments made during the 40 hour period.
All assignments must be completed by December 31.
5. Supervised Occupational Experience  -  1/4 credit

Objectives:

1. to develop competencies necessary for those students preparing for a career in agriculture.
2. to develop career awareness for those students who have not decided on an occupational objective and are exploring the various careers in the field of agriculture.
3. to develop the responsibility of the individual in the performance of work.
4. to develop the ability to keep accurate and meaningful records.

Course Content:

The student must have an SOE Program consisting of a minimum of 2 improvement projects and 15 new occupational skills. It may also include any productive projects or placement projects that do not qualify under any other section of this program. The program must be challenging and show some evidence of planning on the part of the student and demonstrate that he is achieving those plans.

Requirements:

Must complete a minimum of 2 improvement projects and 15 new occupational skills. Records must be kept and turned in by December 31.
Must have completed a minimum of 120 hours.
May include any productive or placement project that does not qualify under another section of this program.

6. Work Experience  -  ____ credit

Objectives:

1. to develop competencies necessary for those students pursuing a career in any phase of agriculture.
2. to develop managerial abilities and responsibilities necessary for assuming ownership of an agricultural business or as a skilled worker in the field of agriculture.
3. to develop the ability to keep accurate and meaningful records.

Course Content and Requirements:

The school may provide release time during the regular school day for students to obtain on-the-job training. Individual requirements and credit will be determined by the school involved.
Program Evaluation

Program evaluation will be achieved in the following manner:

1. instructor visitations to the student's program to observe and provide assistance with any problems that might be encountered.

2. an end of the year evaluation by each student of his individual program

3. a review of the program by the school administration and the agriculture advisory committee at the end of each year.

4. completion of student evaluations by employers involved with the student's SOE Program.

5. a tour to observe SOE Programs by those students involved in the program.

6. the completion of written reports and worksheets and exams where required by the program.

7. the analysis of records of the program.

The grading for the program will be on a pass-fail system.

The final evaluation of the program will be the completion of Proficiency Award Applications by students who have completed at least one year of the SOE Program and their comparison with other similar programs that are carried on in our district and other districts around the state.
Exhibit A
Production Agriculture
VOCATIONAL AGRICULTURE SUPERVISED FARMING PROGRAM AGREEMENT

(Use areas that pertain to your program)

I. This agreement is entered upon this 1st day of January, 1975, between Frank Miller (Parent or guardian) and Jim Miller (Student) for educational purposes in the vocational agriculture department of the Dickinson High school. The enterprises are to be carried out on the Miller farm located 17 miles South East of the school.

II. The productive enterprises shall consist of:

<table>
<thead>
<tr>
<th>Kind</th>
<th>Scope or Extent</th>
</tr>
</thead>
<tbody>
<tr>
<td>wheat</td>
<td>30 acres</td>
</tr>
<tr>
<td>oats</td>
<td>20 acres</td>
</tr>
<tr>
<td>summer fallow</td>
<td>30 acres</td>
</tr>
</tbody>
</table>

III. It is agreed that the livestock rate of rentals will be as follows:

- Sow and litter: $60/year
- Beef (per head): $5/acre
- Dairy Cow (per head): $5/acre
- Sheep (per head): $5/acre
- Wheat (per head): $5/acre
- Oats (per head): $5/acre
- Fallow (per head): $5/acre

IV. It is agreed that the feed for the livestock will be paid for at the following prices:

- Barley at $2.25 per cwt or bu
- Oats at $1.05 per bu or cwt
- Screening at $0.50 per bu or cwt
- Legume hay at $45 per ton or #
- Grass hay at $0.75 per ton or #
- Silage at $0.15 per ton or #
- Salt at $0.50 per cwt or #
- Supplement at $1.25 per cwt or #
- Skimmed milk at $0.10 per gallon
- Whey at $0.10 per #
- Straw at $0.15 per ton

V. It is agreed that for crops enterprises the following arrangements will be used

<table>
<thead>
<tr>
<th>Student will furnish</th>
<th>Parent or guardian will furnish</th>
</tr>
</thead>
<tbody>
<tr>
<td>100% of seed wheat</td>
<td>0% of seed wheat</td>
</tr>
<tr>
<td>100% of seed oats</td>
<td>0% of seed oats</td>
</tr>
<tr>
<td>100% of fertilizer</td>
<td>0% of fertilizer</td>
</tr>
<tr>
<td>100% of spray</td>
<td>0% of spray</td>
</tr>
</tbody>
</table>
VI. It is agreed for crops enterprises the parent or guardian will furnish tractor with fuel and implement at the following rates per acre:

<table>
<thead>
<tr>
<th>Implement</th>
<th>Rate (per acre)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tractor with moldboard plow</td>
<td>$1.25</td>
</tr>
<tr>
<td>Tractor with moldboard plow, packer and drill</td>
<td>$1.25</td>
</tr>
<tr>
<td>Tractor with chisel plow</td>
<td>$1.25</td>
</tr>
<tr>
<td>Tractor with cultivator</td>
<td>$1.00</td>
</tr>
<tr>
<td>Tractor with drag</td>
<td>$1.00</td>
</tr>
<tr>
<td>Tractor with drill &amp; disc</td>
<td>$1.75</td>
</tr>
<tr>
<td>Sprayer</td>
<td>$.50</td>
</tr>
<tr>
<td>Swather</td>
<td>$1.00</td>
</tr>
<tr>
<td>Combine</td>
<td>$3.00</td>
</tr>
<tr>
<td>Truck</td>
<td>$.35/mile</td>
</tr>
<tr>
<td>Sprayer</td>
<td>$.50</td>
</tr>
<tr>
<td>Swather</td>
<td>$1.00</td>
</tr>
<tr>
<td>Combine</td>
<td>$3.00</td>
</tr>
<tr>
<td>Truck</td>
<td>$.35/mile</td>
</tr>
<tr>
<td>Other</td>
<td>$</td>
</tr>
</tbody>
</table>

VII. It is agreed that the crops will be divided as follows:

<table>
<thead>
<tr>
<th>Crop</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td>67%</td>
</tr>
<tr>
<td>Durum</td>
<td>33%</td>
</tr>
<tr>
<td>Barley</td>
<td>67%</td>
</tr>
<tr>
<td>Oats</td>
<td>33%</td>
</tr>
<tr>
<td>Wheat</td>
<td>33%</td>
</tr>
<tr>
<td>Durum</td>
<td>67%</td>
</tr>
<tr>
<td>Barley</td>
<td>33%</td>
</tr>
<tr>
<td>Oats</td>
<td>67%</td>
</tr>
</tbody>
</table>

VIII. It is agreed that in the crop enterprises mentioned above which are operated in partnership, the land will be rented at 33% of the gross or at $ per acre, whichever applies.

IX. It is agreed that the student will keep accurate records of all costs as in approved cost accounts, which considers all expenses as rents whether or not they are paid in cash.

X. It is agreed that the student will assume major responsibility for the carrying out of the above enterprise, along with needed help and advice from parents or guardian and his vocational agriculture instructor.

XI. It is agreed that the student will submit to the parents or guardian and to the vocational agriculture instructor a complete summary showing gain or loss when enterprise is completed.

XII. List here any further agreements entered into:

Signed

Approved: [Signature]
Vo. Agr. Instructor

Signed

20

-13-
**PLANS FOR PRODUCTIVE ENTERPRISES**

**Enterprise:** Beef Cattle  
**Scope:** 12 head  
**Year any year**

**Production Goals:** 12 head x 1.5 work units per head - 18 work units
to produce a 100% calf crop with an average weaning weight of 55# at 8 months.

<table>
<thead>
<tr>
<th>Jobs, Plans and Approved Practices to be carried out</th>
<th>Completions, Changes and adaptations</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. selection of breeding stock - will attend purebred sale and purchase 12 head of registered angus cows.</td>
<td></td>
</tr>
<tr>
<td>2. caring for cattle till calving - will feed a ration of alfalfa hay and prairie hay, free choice till calving.</td>
<td></td>
</tr>
<tr>
<td>3. care at calving - will hold cows in lighted pen till they begin showing signs of calving. The will place in calving pen in barn with adequate bedding. Will check frequently. When calf is born, will disinfect navel and make sure calf is active and healthy.</td>
<td></td>
</tr>
<tr>
<td>4. care after calving - will provide a small shed as a creep shelter for calves and continue ration of alfalfa and prairie hay, free choice.</td>
<td></td>
</tr>
<tr>
<td>5. control parasites - will provide oilers in both the summer pasture and the home corral.</td>
<td></td>
</tr>
<tr>
<td>6. control disease - will frequently check and observe cattle to be familiar with their physical condition - will treat ailments as soon as possible and isolate diseased animals - will vaccinate all breeding stock.</td>
<td></td>
</tr>
<tr>
<td>7. castration and dehorning - will use dehorning paste on young calves and use rubber elastrator bands for castration.</td>
<td></td>
</tr>
</tbody>
</table>
**PLANS FOR PRODUCTIVE ENTERPRISES (Continued)**

<table>
<thead>
<tr>
<th>Jobs, Plans and Approved Practices to be carried out</th>
<th>Completions, Change, and Adaptations</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. breeding - will rent bull from the neighbor and breed cows to calf during the last week of February or the first weeks of March</td>
<td></td>
</tr>
<tr>
<td>9. feeding - will feed alfalfa hay and prairie hay until pasture is ready and supplement with oats if cow begins to show stress - on pasture will provide salt (loose) and trace minerals free choice at the water hole.</td>
<td></td>
</tr>
<tr>
<td>10. production testing - will tag cow and calf with identification numbers. At eight months of age, will wean and weigh calves. Will automatically cull any cow producing less than 20% of the herd average and buy replacement stock. Will keep individual records on stock.</td>
<td></td>
</tr>
<tr>
<td>11. securing new stock - will keep two heifers for replacement or addition if they have attained at least the average weaning weight.</td>
<td></td>
</tr>
<tr>
<td>12. selling feeders - will sell feeders at local auction market at 600#, before sale, will start on ration of rolled oats with supplements added to prairie hay.</td>
<td></td>
</tr>
<tr>
<td>13. wintering the herd - will winter in home pasture and corral on alfalfa and prairie hay and supplement with oats if the cows begin to show signs of stress</td>
<td></td>
</tr>
</tbody>
</table>
EXHIBIT B

On-Farm Placement
DICKINSON AREA VOCATIONAL HIGH SCHOOL

TRAINING AGREEMENT

Student's Name: Bill Smith
Birth Date: 11-26-58
Age: 16

Student's Address: 1410 1st Street East
Telephone: 345-9862

Name of Training Station: Johnson Farms
Address of Training Station: Rt. 3, Box 45
Telephone: 345-6421

Name of Training Supervisor: Gary Johnson
Position: Owner

Average No. of Hours to be Worked by the Student:
Per Day: 9
Per Week: 54

Student-Learner's Rate of Pay: $2.00/hour
Career Objective: Farm Manager

Brief outline of experiences and training to be provided at training station:
I. Operations Learning Activities
   A. Crop Production
   B. Livestock Production

II. Marketing Learning Activities
   III. Management Learning Activities

Brief outline of major areas of related instruction to be provided in class:
I. Business Procedures and Organization
   IV. Soils and Their Properties
II. Beef Production and Nutrition
    V. Chemicals and Their Uses
III. Swine Production and Nutrition
    VI. Crop Production and Weed Control

Responsibilities of the Student-Learner:
1. The student-learner will keep regular attendance, both in school and on the job, for school or work.
2. The student learner will consult the coordinating teacher about any difficulties arising at the training station.
3. The student learner will conform to the rules and regulations of the training station.
4. The student learner may change her place of employment only after consultation with and approval by the teacher-coordinator.
5. The student learner is encouraged to effectively carry out her duties and responsibilities.
6. The student learner will be responsible for his own safety and conduct while he is traveling to and from school, the training station, and home.
7. The teacher coordinator will be consulted about any employer-employee problems that arise between their students and the employer.

Responsibilities of the Training Sponsor:
1. The sponsor will endeavor to employ the student learner for at least the minimum number of hours each day and each week for the entire agreed training period.
2. The sponsor will adhere to all Federal and State regulations regarding employment, child labor laws, minimum wages, and other applicable regulations.

3. The sponsor will see that the student-learner is not allowed to remain in any one operation, job, or phase of the occupation beyond the period or time where such experience is of educational value.

4. The sponsor will consult the coordinating teacher about any difficulties that arise at the training station.

5. The sponsor will assist in the evaluation of the student-learner. (Evaluation form attached to this agreement.)

6. The sponsor will provide time for consultation with the coordinating teacher concerning the student-learner.

7. The sponsor may terminate this agreement at any time after consultation with the teacher-coordinator.

Responsibilities of Coordinating Teacher:

1. The coordinating teacher will correlate and coordinate classroom and on-the-job training to improve job performance and to better prepare the student-learner for her occupational career objective.

2. The coordinating teacher will see that the necessary related classroom instruction is provided.

3. The coordinating teacher will make periodic visits as necessary to the training station to observe the student-learner and consult with the employer and training sponsor.

4. The coordinating teacher will assist in the evaluation of the student-learner.

5. The coordinating teacher may terminate this agreement at any time after consultation with the employer if the coordinator feels it is in the best interest of those concerned.

Bill Smith
Student-Learner

Sandy Johnson
Training Sponsor

Mr. & Mrs. Wm. Smith
Parent
(When applicable)

Dale L. Roenacker
Teacher-Coordinator
PLANS FOR SUPERVISED OCCUPATIONAL EXPERIENCE PROGRAMS
Other Than Productive Enterprises

Employer: Johnson Farms  Address: Rt. 3, Box 45
Type of Business: Livestock and Crop Farm  Phone: 345-6421
Job Description: General Farm Hand and Farm Management Trainee

I. Occupational Goals
   a. Farm Manager

II. Plans and/or Exploratory Experiences to be Carried out.
   I. General Learning Activities
      A. Study training center
      B. Study organization structure
      C. Study operational structure
      D. Study management functions
      E. Study purchasing procedures
      F. Discuss role of trainee
   II. Operations Learning Activities
      A. Crops production
         1. operate tractors
         2. service tractors
         3. operate and adjust farm equipment
            a. disc and drill
            b. field cultivator
            c. harrow or drag
            d. surflex tillers
            e. other field equipment
         4. calibrate and operate fertilizer applicators
         5. take soil tests
         6. identification of weeds and insects
         7. mix chemicals and apply herbicides and pesticides
         8. operate haying equipment
            a. mower and rake
            b. baler
            c. field choppers
            d. other hay equipment
9. adjust and operate combine
10. prepare grain bins
11. calculate yields

B. Livestock Production
1. storage of feeds, equipment and materials
2. formulate feeding rations
3. operate feed processing equipment
4. identify livestock pests and diseases
5. build and repair fence
6. worm swine
7. care for sows at farrowing
8. keep records on litters
9. ear notch and tattoo
10. vaccinate hogs and castrate
11. select hogs for breeding
12. care for cows during calving
13. keep production records
14. brand, dehorn and castrate
15. select cattle for breeding

III. Marketing Learning Activities
A. Gather and use crop and livestock information
B. Compare grain price information at elevators
C. Compare storage of crops to selling at harvest
D. Market grain and livestock
E. Compare livestock marketing outlets

IV. Management Learning Activities
A. Determine seeding rates for crops
B. Interpret soil tests
C. Determine fertilizer costs per acre
D. Keep records on crops enterprises
F. Keep records on livestock enterprises
F. Draw land use maps of the farm
G. Take equipment inventories
H. Prepare end-of-year summaries of farm enterprises
EXHIBIT C

Agri-Business Placement
DICKINSON AREA VOCATIONAL HIGH SCHOOL
TRAINING AGREEMENT

Student's Name: Bill Smith         Birth Date: 11-26-58        Age: 16
Student's Address: 1410 1st Street East          Telephone: 345-9862
Name of Training Station: Johnson Farms          Telephone: 345-6421
Address of Training Station: Rt. 3, Box 45
Name of Training Supervisor: Gary Johnson        Position: Owner
Average No. of Hours to be Worked by the Student: Per Day: 9 Per Week: 54
Student-Learner's Rate of Pay: $2.00/hour        Career Objective: Farm Manager

Brief outline of experiences and training to be provided at training station:
I. Operations Learning Activities
   A. Crop Production
   B. Livestock Production
II. Marketing Learning Activities
   III. Management Learning Activities

Brief outline of major areas of related instruction to be provided in class:
I. Business Procedures and Organization
   IV. Soils and Their Properties
II. Beef Production and Nutrition
   V. Chemicals and Their Uses
III. Swine Production and Nutrition
    VI. Crop Production and Weed Control

Responsibilities of the Student-Learner:
1. The student-learner will keep regular attendance, both in school and on the job, for school or work.
2. The student-learner will consult the coordinating teacher about any difficulties arising at the training station.
3. The student-learner will conform to the rules and regulations of the training station.
4. The student-learner may change her place of employment only after consultation with and approval by the teacher-coordinator.
5. The student-learner is encouraged to effectively carry out her duties and responsibilities.
6. The student-learner will be responsible for his own safety and conduct while he is traveling to and from school, the training station, and home.
7. The teacher-coordinator will be consulted about any employer-employee problems that arise between their students and the employer.

Responsibilities of the Training Sponsor:
1. The sponsor will endeavor to employ the student-learner for at least the minimum number of hours each day and each week for the entire agreed training period.
2. The sponsor will adhere to all Federal and State regulations regarding employment, child labor laws, minimum wages, and other applicable regulations.

3. The sponsor will see that the student-learner is not allowed to remain in any one operation, job, or phase of the occupation beyond the period or time where such experience is of educational value.

4. The sponsor will consult the coordinating teacher about any difficulties that arise at the training station.

5. The sponsor will assist in the evaluation of the student-learner. (Evaluation form attached to this agreement.)

6. The sponsor will provide time for consultation with the coordinating teacher concerning the student-learner.

7. The sponsor may terminate this agreement at any time after consultation with the teacher-coordinator.

Responsibilities of Coordinating Teacher:

1. The coordinating teacher will correlate and coordinate classroom and on-the-job training to improve job performance and to better prepare the student-learner for her occupational career objective.

2. The coordinating teacher will see that the necessary related classroom instruction is provided.

3. The coordinating teacher will make periodic visits as necessary to the training station to observe the student-learner and consult with the employer and training sponsor.

4. The coordinating teacher will assist in the evaluation of the student-learner.

5. The coordinating teacher may terminate this agreement at any time after consultation with the employer if the coordinator feels it is in the best interest of those concerned.

---

William Smith
Student-Learner

Mary Johnson
Training Sponsor

Mr. and Mrs. William Smith
Parent
(When applicable)

Dale K. Remmich
Teacher-Coordinator
PLANS FOR SUPERVISED OCCUPATIONAL EXPERIENCE PROGRAMS

Other Than Productive Enterprises

Employer: Baker Nursery
Address: 1426 South Main Avenue
Type of Business: Nursery Sales and Services
Phone: 987-2456
Job Description: Nursery Sales and Gardening Assistant

I. Occupational Goals
a. Nursery Worker
b. Landscape Designer
c. General Horticulture

II. Plans and/or Exploratory Experiences to be Carried out.

To Be Learned On The Job

I. Learning the organization of the business and routine of operation
   a. rules and regulations
   b. filling out wage forms, records
   c. fill out sales tickets, receipts
   d. services offered by employer
   e. handling checks
   f. credit plans
   g. levels of organization
   h. housekeeping duties
   i. operation of business machines
      1. cash register
      2. adding machine
      3. intercom

To Be Learned At School

   a. employee rights and regulations
   federal and state laws
   1. wages
   2. student learner permits
   3. child labor laws
   4. hazardous occupations
   5. social security regulations
   6. taxes
   7. workmen's compensation
   8. unemployment insurance
   9. informational sources
   1. sales tickets
   2. charge slips
   3. receipts and checks
   4. order forms
   5. inventories

II. Display of Merchandise
   a. pot plant materials and prepare for display
      1. prune plant
      2. prepare soil mix
      3. select pots
   a. soils and their products
      1. types of soils
      2. mineral vs. organic soils
      3. soil testing
      4. soil organisms
<table>
<thead>
<tr>
<th>Plans, etc. (Continued)</th>
<th>Merchandise Information</th>
<th>Customer Relations and Sales</th>
<th>Landscaping</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. keep plants watered and in good condition</td>
<td>a. identification of materials</td>
<td>a. approach and greet customers</td>
<td>a. drawing procedures</td>
</tr>
<tr>
<td>b. merchandising procedures</td>
<td>a. hort plant science</td>
<td>a. sales and services</td>
<td>a. drawing procedures</td>
</tr>
<tr>
<td>c. arrangement of plant materials</td>
<td>1. plant identification</td>
<td>b. display merchandise</td>
<td>b. planning surveys</td>
</tr>
<tr>
<td>d. arrangements of hardware and chemicals</td>
<td>2. plant recommendations</td>
<td>c. present sales pitch</td>
<td>c. selection of plants</td>
</tr>
<tr>
<td>e. keep area neat and orderly</td>
<td>3. chemical recommendations</td>
<td>d. close transaction</td>
<td>d. designing landscapes</td>
</tr>
<tr>
<td>f. revolving display materials</td>
<td></td>
<td>e. handle telephone</td>
<td>e. meeting customers</td>
</tr>
<tr>
<td>g. advertising methods</td>
<td></td>
<td>f. deliver materials</td>
<td>f. landscape maintenance</td>
</tr>
<tr>
<td>h. preparing advertising</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### III. Merchandise Information

<table>
<thead>
<tr>
<th>a. identification of materials</th>
<th>a. hort plant science</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. plant identification</td>
<td>1. identification of plants</td>
</tr>
<tr>
<td>2. plant recommendations</td>
<td>2. plant structure and growth</td>
</tr>
<tr>
<td>3. chemical recommendations</td>
<td>3. plant propagation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>b. location of stock</th>
<th>4. plant diseases and pests</th>
</tr>
</thead>
<tbody>
<tr>
<td>c. care of merchandise</td>
<td>b. chemicals and their uses</td>
</tr>
<tr>
<td>d. read product publications</td>
<td>1. federal regulations</td>
</tr>
<tr>
<td></td>
<td>2. uses and control methods</td>
</tr>
</tbody>
</table>

### IV. Customer Relations and Sales

<table>
<thead>
<tr>
<th>a. approach and greet customers</th>
<th>a. sales and services</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. display merchandise</td>
<td>1. greeting customers</td>
</tr>
<tr>
<td>c. present sales pitch</td>
<td>2. sales pitch</td>
</tr>
<tr>
<td>d. close transaction</td>
<td>3. closing sales</td>
</tr>
<tr>
<td>e. handle telephone</td>
<td>4. customer relations</td>
</tr>
<tr>
<td>f. deliver materials</td>
<td>5. phone etiquette</td>
</tr>
</tbody>
</table>

### V. Landscaping

<table>
<thead>
<tr>
<th>a. drawing procedures</th>
<th>a. drawing procedures</th>
</tr>
</thead>
<tbody>
<tr>
<td>b. planning surveys</td>
<td>b. basics of design</td>
</tr>
<tr>
<td>c. selection of plants</td>
<td>c. presite inventories</td>
</tr>
<tr>
<td>d. designing landscapes</td>
<td>d. use of trees and shrubs</td>
</tr>
<tr>
<td>e. meeting customers</td>
<td>e. care of trees and shrubs</td>
</tr>
<tr>
<td>f. landscape maintenance</td>
<td>f. turf grass maintenance</td>
</tr>
</tbody>
</table>
EXHIBIT D

Individualized Instruction Program
INDIVIDUALIZED INSTRUCTION PROGRAM

NAME ________________________________ Jimmy Jones

COURSE NAME ________________________ Animal Nutrition

Occupational Goals:

a. feed salesman
b. farm manager

Supervised Occupational Experience Programs:

a. production agriculture
b. agri-business placement

Plans and/or Explatory Experiences to be Carried Out:

I. Understand the basic economics of livestock feeding

A. Determine the value of various classes of market livestock and livestock products common to the local area
B. Determine feed costs of producing these market livestock
C. Visit the experiment station and discuss the various feed trials taking place
D. Visit feed processing center and discuss types of feed available and quantities purchased.
E. Submit report listing activities and results of research carried out

II. Develop an Understanding of Animal Nutrition

A. Collect samples of feeds and feed additives and identify each
B. Classify feeds as to high, medium, or low for the following:
   1. energy
   2. protein
   3. minerals
   4. vitamins
C. Calculate the nutritive requirements of various classes of livestock
D. Consult feed dealers for examples of management advice given to feeders and skills that employees need for their jobs
E. Obtain samples of the ruminant digestive system and examine and identify as to function, structure and size
F. Submit report listing activities and result of research carried out
III. Understand Different Livestock Feeds and Their Values
   A. Learn the TDN, NE, TP and DP of local feeds and determine best buys
   B. Collect feed tags and make cost comparisons of the feeds
   C. Develop a sales presentation of a selected feed
   D. Develop ability to identify common feedstuffs
   E. Develop a chart to compare quality of protein in feeds
   F. Submit report listing activities and results of research carried out

IV. Understanding the Regulations in the Formulation, Labeling and Using of Feeds
   A. Obtain and study copies of feed regulations for North Dakota
   B. Obtain samples of feed labels and compare them with the labeling requirements
   C. Compare closed and open feed formulations
   D. Visit local feed processor and discuss process of registration, licensing, and labeling of feeds
   E. Be able to differentiate between the terms brand and name of feeds
   F. Submit report listing activities and results of research carried out

V. Formulating Rations
   A. Balance rations for different classes of livestock
   B. Analyze rations to determine if all nutrients are present in correct amounts
   C. Calculate costs of rations
   D. Consult feed dealer for actual problems in balancing rations
   E. Submit report listing activities and results of research carried out

VI. Methods of Feed Preparation
   A. Collect samples of feed prepared by different methods, identify method, use of the feed and advantages and disadvantages for each method
   B. Visit the feed processor and become familiar with processing equipment
   C. Submit report listing activities and results of research carried out

VII. Methods used and the common trends in feed merchandising
   A. Visit feed processor and discuss methods used to advertise feeds
   B. Visit feed processor and discuss services offered to customers
   C. Examine credit policies used by the feed business
   D. Submit report listing activities and results of research carried out

VIII. Final Examination on Animal Nutrition
EXHIBIT E

Supervised Occupational Experience
## IMPROVEMENT PROJECT PLANS

<table>
<thead>
<tr>
<th>Name of Project</th>
<th>Jobs to Perform</th>
<th>Materials and Equipment</th>
<th>Cost</th>
<th>Hours Self Labor</th>
<th>Date Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td>CROPS VIII</td>
<td>introduce the bulletin on crop</td>
<td>-</td>
<td>½</td>
<td>2-16</td>
<td></td>
</tr>
<tr>
<td></td>
<td>recommended varities varities from county agent</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td></td>
<td>clean seed before elevator</td>
<td>-</td>
<td>3</td>
<td>2-23</td>
<td></td>
</tr>
<tr>
<td></td>
<td>planting</td>
<td>fanning mill</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>make purity test</td>
<td>hand screens</td>
<td>-</td>
<td>2½</td>
<td>3-7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>scale</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>make germination test</td>
<td>paper towel</td>
<td>-</td>
<td>1</td>
<td>3-7</td>
</tr>
<tr>
<td></td>
<td></td>
<td>plastic bowl</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>calibrate drill</td>
<td>drill</td>
<td>-</td>
<td>4</td>
<td>4-24</td>
</tr>
<tr>
<td></td>
<td></td>
<td>canvas</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100 ft. tape</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>scale</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>extra grain</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>treat seed</td>
<td>elevator</td>
<td>$30</td>
<td>3½</td>
<td>5-2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>seed treater &quot;DB&quot; Green</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>control weeds</td>
<td>spray coupe</td>
<td>-</td>
<td>6-12</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>2,4-D spray</td>
<td>$60</td>
<td>3½</td>
<td>6-12</td>
</tr>
<tr>
<td></td>
<td>clean combine</td>
<td>combine</td>
<td>-</td>
<td>2</td>
<td>8-21</td>
</tr>
<tr>
<td></td>
<td></td>
<td>vacuum</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td></td>
<td>air compressor</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td></td>
<td>$90</td>
<td>20</td>
<td>-</td>
</tr>
</tbody>
</table>

---

37-30-
# IMPROVEMENT PROJECT PLANS

<table>
<thead>
<tr>
<th>Year</th>
<th>Name of Project</th>
<th>Jobs to Perform</th>
<th>Materials and Equipment</th>
<th>Cost</th>
<th>Hours Self Labor</th>
<th>Date Completed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
NEW OCCUPATIONAL SKILL IN AGRICULTURE

I. New skill to master: Soil Sampling

II. Occupational Objective: Fertilizer and Feed Salesman

III. Relationship between the skill and the objective (how does it support the objective?)

Knowledge of soil samples and requirements are necessary in selling fertilizer so you can understand the customer’s needs. It may also be necessary to explain how to take soil samples.

IV. Sources of information about the skill: Soil sampling kit from the Vo-Ag Department; pamphlet on Soil Sampling from NDSU Extension

V. Activities to be used in demonstrating the skill:

A. make soil samples
B. draw field map showing locations of samples
C. send samples in and use results to determine fertilizer requirements of crop to be grown on soil for the coming year

VI. Steps to be used in performing the activities:

A. become familiar with sampling equipment
B. determine the types of samples that will be necessary
C. take soil samples
D. draw out field maps showing location of the samples
E. complete information forms and send to NDSU
F. determine fertilizer requirements of crops to be grown using the results obtained from the soil test
VI. continued -

VII. New Occupational Skills Diary:

<table>
<thead>
<tr>
<th>Date</th>
<th>Place</th>
<th>Describe what was done and any special problems</th>
<th>Hours Spent</th>
</tr>
</thead>
<tbody>
<tr>
<td>9-10</td>
<td>home</td>
<td>took 5 samples from 25 acres, prepared and</td>
<td>1 1/2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>sent to NDSU</td>
<td></td>
</tr>
<tr>
<td>9-21</td>
<td>home</td>
<td>mapped west section for sampling</td>
<td>2</td>
</tr>
<tr>
<td>9-23</td>
<td>home</td>
<td>analyzed results from test on 25 acres</td>
<td>2</td>
</tr>
<tr>
<td>9-25</td>
<td>home</td>
<td>soil tested west section and sent samples to NDSU</td>
<td>5</td>
</tr>
<tr>
<td>10-19</td>
<td>home</td>
<td>determine fertilizer needs from results of</td>
<td>3 1/2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>soil tests on west section</td>
<td></td>
</tr>
</tbody>
</table>

Total Hours 14

Instructor's Approval  Dale L. Remmich  Date 10-23
Supervised Occupational Experience Programs in Agriculture
Summer Programs for School Credit

DICKINSON AREA VOCATIONAL HIGH SCHOOL
VOCATIONAL AGRI-BUSINESS AND NATURAL RESOURCES
AGREEMENT AND REGISTRATION FORM

Programs Available

1. Production Agriculture 1/4 credit refer to exhibit A
   Pre-requisite - must have completed Vo-Ag II or Hort I
   Records must be kept and turned in by December 31
   Must have a productive work load of 15 work units for which
   the student has complete ownership or managerial control
   Must have signed agreement between student and parent or employer

2. On-Farm Placement 1/4 credit refer to exhibit B
   Records must be kept and turned in by December 31
   Agreement between student and employer must be signed before
   the program is approved
   Minimum requirement of 160 hours of work

3. Agri-Business Placement 1/4 credit refer to exhibit C
   Records must be kept and turned in by December 31
   Agreement between student and employer must be signed before
   the program is approved
   Minimum requirement of 160 hours of work

4. Individualized Instruction Program 1/4 credit refer to exhibit D
   Must attend 40 hours of class instruction arranged by independent
   study
   Must complete all assignments and keep a record of all activities

5. Supervised Occupational Experience 1/4 credit refer to exhibit E
   Must complete a minimum of 2 improvement projects
   Must complete a minimum of 15 new occupational skills
   Records must be kept and turned in by December 31
   May also include any productive project or placement where
   minimum hours are not attained or work units met
   Must have worked 120 hours minimum in any combination of the above

I hereby agree to participate in, supervise, and complete the above programs
to the best of my ability.

STUDENT ___________________________ DATE ___________________________

PARENT ___________________________ DATE ___________________________