

COOPERATIVE EXTENSION WORK
IN
AGRICULTURE AND HOME ECONOMICS

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OKLAHOMA AGRICULTURAL AND
MECHANICAL COLLEGE AND
UNITED STATES DEPARTMENT OF
AGRICULTURE, COOPERATING

EXTENSION SERVICE
COUNTY AGENT WORK
STILLWATER, OKLAHOMA

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4-H TERRACING MANUAL

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ORGANIZATION OF WORK

Purpose of Work. First, to familiarize as many as possible of our young farmers with soil conservation and improvement practices. Second, to train 4-H terracing club members so that farmers and non-resident land owners may employ the services of those boys who become proficient in terracing work.

Plan of Work. This work will be carried on cooperatively by County Agents, 4-H Teams, State Club Agents, and the Extension Agricultural Engineering Specialists.

4-H Teams will be governed by the rules for this work as laid down by extension authorities who will cooperate with the county agent to the fullest extent possible.

State Club Agents will promote this phase among club members at club meetings. Encourage county agents to include this phase in the club program. Secure awards for winning teams such as are warranted by the worthiness of this work. Maintain a close cooperative contact with the agricultural engineering specialists in all lines affecting this phase of 4-H club work.

The Agricultural Engineering Specialists will cooperate and assist in the work outlined to the fullest extent. Assist in conducting 4-H Terracing schools. Assist in instructing 4-H teams in profile leveling. Conduct state terracing contests held at Stillwater and at the state fairs. These contests are open to all counties in the state according to rules governing the work.

The County Agent will organize agricultural engineering teams. (Eligible members of horticulture and agronomy projects may also undertake agricultural engineering work).

Enlist aid available in the county for promoting and carrying on the work, such as school teachers, bankers, civic organizations, etc.

Instruct teams in terracing theory and practice and encourage attendance at demonstrations as outlined in club rules.

Hold county contest to determine best team to compete at Farmers' Week contest.

Bring winning county team to Farmers' Week contest. Forward 4-H terracing reports for the 4-H Club Round-Up to the Extension Division at Stillwater not later than July 15. Assist 4-H agricultural engineering club members to secure employment from farmers, when the members are qualified to do terracing work. Assist members in outlining demonstration material.

Suggested Calendar of Work

December and January—Organization of work.

February and March—Theory classes and field practice.

April, May and June—Field practice, terracing demonstrations, and county elimination contest.

July—Work up team demonstration. (Not a part of terracing contests).

August—State contest Farmers' Week. Awards to state winners.

September and October—State fair contests.

November—Begin field practice for next year.

Suggestions for County Agent Terracing Theory Period

Discuss

The highly competitive nature of present and future farming.

The relation of increased production to lowered costs.

The importance of fertile soil to increased production.

The importance of soil moisture to plant growth. (Cir. 218, P. 8 and 10).

The importance of humus to soil moisture holding capacity. (Cir. 218, P. 8).

Erosion. What it is. (Cir. 218, P. 7).

Two forms of erosion. (Cir. 218, P. 7 and 8).

Plant food losses due to erosion. (Each year 21 times the amount used by crops).

Oklahoma conditions which make her soil and plant food losses particularly greater. (Cir. 218, P. 7).

The modern terrace. What it is. (Cir. 218, P. 6).

The object of terracing. (Cir. 218, P. 9, and 19).

- Explain** (Have level and rod to demonstrate with).
- Parts of farm level and rod. (Cir. 218, P. 11).
 - (Remove turret from face plate after first removing the three large plate screws).
 - How to set up and use the farm level. (Cir. 218, P. 12 and 13).
 - Use of cross hairs.
 - Tests and adjustments of the farm level. (Manufacturers directions usually found on lid of level box).
 - Importance of keeping bubble in exact center of bubble tube. (Cir. 218, P. 11 and 17).
 - Importance of avoiding long level shots. (Cir. 218, P. 17).
 - The grade of a terrace. (Cir. 218, P. 18 and 19).
 - The running of a terrace line. (Cir. 218, P. 16).
 - How to pass the level beyond the rod. (Cir. 218, P. 16).

- Discuss** (Have blackboard and crayon if possible).
- The first four steps in terracing.
 1. Sizing up the area. (Cir. 218, P. 13).
 2. Find the highest point of area and measure slope. (Cir. 218, P. 14 and 15).
 3. Consult guide table for vertical fall. (Cir. 218, P. 16).
 4. Run trial terrace line. (Cir. 218, P. 18).
 - Vertical fall and spacing of terraces. (Cir. 218, P. 14).
 - Building terraces. (Cir. 218, P. 20 and 28).
 - (a) Implements used.
 - (b) Making fills and outlets.
 - (c) Safe Dimensions.
 - (d) Settlement of loose soil.
 - Maintenance of terraces. (Cir. 218, P. 27).
 - Cultivation of terraced fields. (Cir. 218, P. 28).
- The county agent should sight to local conditions and examples.
A two or three hour period can well be used in theory discussion.

RULES FOR 4-H AGRICULTURAL ENGINEERING TERRACING CLUB WORK

General Rules

1. A terracing team will be composed of two regularly enrolled 4-H club boys between 16 and 20 years of age, inclusive.
2. Each county may enter one team in the state terracing contest held at Stillwater. This rule also applies in any one of the three state fair terracing contests.

RULES FOR COUNTY TERRACING CLUB MEMBERS

1. Attend at least one theory class in terracing at the direction of the county agent.
2. Participate in three or more terracing schools and demonstrations held by the county agent.
3. Make a study of and thoroughly understand the work of terracing as outlined in Extension Circular Number 218.
4. Be able to test the accuracy of a farm level according to directions of the manufacturer. These directions are usually found on the inside of the lid of the level box.
5. Practice terrace line running in the field in order to gain confidence in ability to solve special problems. Each team member should, during the year, satisfactorily lay out terrace lines on at least 100 acres of land. Team members that run lines on a greater acreage will be given credit accordingly when entering state terracing contests.

6. Participate in county elimination contests held by the county agent for the purpose of selecting the best team to represent the county in the Farmers' Week contest at Stillwater and at the state fair contest. This county contest is an important part of the year's work. Club members should bring this rule to the attention of the county agent and arrange with him the date, time and place for the contest.
7. Keep an accurate record of useful terracing work done during the year, as called for in the regular 4-H terracing report. These report blanks are available from the Stillwater Extension office.

RULES FOR TERRACING CLUB MEMBERS COMPETING IN STATE CONTESTS

Club members representing a county in the terracing contest at Stillwater or at one of the state fair contests should be governed by the Rules for County Terracing Club Members, and by the following in addition.

1. Mail terracing reports to the Extension Division at Stillwater not later than July 15.
2. Report submitted July 15 should be progress reports including work done since the beginning of the Extension program of work in December.
3. When competing in a state fair terracing contest, the team members should submit reports of all terracing work done during the year. These reports may be given to the conductor of the contest on day of the contest i. e. if reports have not previously been mailed to the Extension Division at Stillwater.
4. Attend at least one theory and one practice class in profile leveling under the direction of the county agent or specialist.
5. Be able to properly adjust a farm level according to manufacturers' directions.
6. Study and thoroughly understand the work of profile leveling as outlined in Extension Circular Number 224.
7. Work up a set of profile level notes obtained by running at least 800 feet of ditch line. These notes should be addressed and mailed to Stillwater with the regular terracing report.
8. Have a general knowledge of the subject matter contained in Extension Circulars Number 175, "The Farm Pond," and Number 219, "Reclaiming and Controlling Gullies and Ditches."

JUDGING STATE CONTESTS

Team members will be held responsible for any information or subject matter contained in bulletins or circulars referred to under Rules of Contest.

Team members will be graded upon their ability to solve special field problems, and upon their knowledge of the use of the farm level and rod in running terrace lines.

The team members' record of useful terracing work done in the county will be a very important part of contests, counting approximately one-third of the total possible score.

STATE PRIZES

Oklahoma State Fairs offer \$300.00 to be awarded to terracing teams. Each of the three State Fairs offer 4-H Club terracing team prizes of \$100.00 to be distributed as follows: \$20, \$16, \$14, \$10, \$10, \$10, \$10, \$10.

At the 4-H Club Round-Up on the Oklahoma A. and M. College campus a state-wide short course and contest will be conducted in terracing. This short course should serve to a large extent as the final training school in terracing work for the year.