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THE 4-H PIG CLUB

4-H Club Circular 29

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**COOPERATIVE EXTENSION WORK IN
AGRICULTURE AND HOME ECONOMICS**
UNIVERSITY OF MISSOURI COLLEGE OF AGRICULTURE AND THE UNITED
STATES DEPARTMENT OF AGRICULTURE COOPERATING
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THE 4-H PIG CLUB*

INTRODUCTION

Any boy or girl who carries out pig club work as it should be done will be greatly benefited by the experience. The association with other enthusiastic members, the growing, feeding and care of pigs which are their own personal property, and the keeping of accurate, businesslike records of feed costs, gains and profits—all assist in laying the foundation for successful lives.

It is hoped that the material in this circular will be of benefit to pig club members by giving them some of the basic facts in pork production which should enable them to produce pork more efficiently and economically.

ORGANIZATION OF STANDARD 4-H PIG CLUBS

A standard 4-H pig club is composed of a group of five or more boys or girls from the same community between the ages of ten and twenty-one years who are working upon the same pig club project under the direction of a local club leader.

Meetings.—Standard 4-H clubs are required to hold at least six regular meetings during the club year. These meetings may be held as often as the local club leader and members desire; however, the meetings usually are held about once each month.

Below are subjects suggested for a number of club meetings. It may be necessary to devote two or more meetings to some of the subjects. It is suggested that these subjects be followed in the order named. Local club leaders and clubs are expected to adapt these subjects to local community conditions.

Suggested meetings for the three pig club projects are as follows:

The 4-H Sow and Litter Club Project, page 3.

The 4-H Purebred Gilt Club Project, page 10.

The 4-H Market Pig Club Project, page 10.

REQUIREMENTS OF THE 4-H SOW AND LITTER CLUB PROJECT

Object.—The object of the Sow and Litter Club work is to organize

*Note.—Prepared by J. W. Burch, Extension Specialist in Animal Husbandry, in collaboration with T. T. Martin, State Club Agent.

boys and girls into groups to demonstrate methods of caring for and feeding of sow before farrowing and at farrowing time, caring for the young pigs and feeding out of the litter, methods used in recording the gilt, judging, fitting and showing; and to train the members in leadership.

Work Required.—Each club member is required to feed and care for a purebred gilt from at least two weeks before farrowing time, and to feed and care for her during the remaining period of pregnancy, at farrowing time and during the growth of her litter of pigs until a show or round-up is held in the fall, when the pigs should be of breeding size or ready for market. The majority of litters should be fed with the view of sending all to market for pork when from six to seven months of age, at which time the pigs should weigh 200 to 225 pounds each. The pigs should be farrowed, preferably in March, and all boar pigs, other than exceptionally good pigs, should be castrated and fattened for pork.

Records Required.—Each club member is required to keep a record starting when the sow farrows, the expenses and amount of feed used, the number and sex of pigs farrowed, the weight of the litter produced, and a financial report of the operations, and to write a story of the club experiences for the year, in a record book provided by the Extension Service of the Missouri College of Agriculture.

Ownership Required.—Each club member is required to own a purebred gilt, and to provide feed enough to carry the sow and to grow or fatten the litter to about 200 pounds each by October. This will require about 800 to 850 pounds of grain for each pig brought to this weight. In addition, the member will pay the cost of immunizing the litter against cholera.

Time Required.—Time required to feed and care for the sow and litter.

Time for attendance at six or more club meetings.

Time for one all-day club tour.

Time for one day at a club round-up at the close of the year's work.

Organization.—The Sow and Litter Club should start any time from December 15 to not later than about two weeks before the pigs are to be farrowed, (preferably in March) and it should continue until the litter is shipped to market, or until the gilts in the litter are of breeding age in the fall, generally in October.

SUGGESTED MEETINGS FOR 4-H SOW AND LITTER CLUBS

I. Organization of the Club.—(See Club Secretary's Record Book.)

1. The business meeting.—The local club leader in charge.

(1) Explanation of the duties of the club officers and members.
(See Club Secretary's Record Book.)

- (2) Election of club officers from the membership of the club: President, Vice-President, Secretary, Song and Yell Leader and Club Reporter.
 - (3) Selection of a name for the club. (It is suggested that the name be selected so as to identify the club and the project.)
 - (4) Selection of a time and place for regular club meetings.
 - (5) Appointment of a committee to work up or select an appropriate song and yell for the club.
 - (6) Adjournment of business meeting for instructions in club work.
2. Instructions.—the local club leader in charge.
- (1) Distribution of club circulars and record books and explanation of their use.
 - (2) Explanation of standard 4-H Club requirements. (See the Club Secretary's Record Book.)
 - (3) Explanation of the club project requirements for the Sow and Litter Club. (See requirements in front part of this club circular.)
 - (4) Setting club goals, such as:
 - a. Every member will follow the McLean plan of hog sanitation in detail.
 - b. Every member will try to raise a ton litter.
 - c. Each member will attend every club meeting and will make a complete report.
 - (5) Discussion of the main club events for the year, such as:
 - a. Holding six or more regular club meetings.
 - b. Making the club tour.
 - c. Conducting the 4-H Club round-up.
 - d. Exhibiting, judging and demonstrating at fairs.
 - e. Attending and taking part in the State 4-H Club Round-up.
 - f. Attending the county or district camp, etc.
 - (6) Stating specifically what each member must do to start the work.
 - (7) Discussion: Selecting the Sow or Gilt. Page 16.
 - (8) Assignment of work for the next club meeting:
 - a. Assignment of the National 4-H club pledge to be learned by all members before the next meeting. (See pledge in the suggested outline of second club meeting.)
 - b. Bringing of record books to the meeting.
 - c. Reference: Selecting Sow or Gilt. Page 16.
Score card. Page 43.
 - d. Assignment of one or more topics to be used in response to roll call, as:
 - (a) Give the weight of the sow when the project was started.
 - (b) Name the good and bad points of the sow as indicated by the score card.
 - (c) Name a standard 4-H club requirement and give one or more good reasons for the requirement.
3. The social hour, games, etc.

II. Club Meeting.—Selecting the Sow or Gilt.

1. The business meeting.—The club president in charge. Reference: Duties of club officers, Club Secretary's Record Book.
 - (1) Meeting called to order by the president, who leads the club members in repeating the National 4-H club pledge, as follows: "I pledge my *head* to clearer thinking, my *heart* to greater loyalty, my *hands* to larger service, and my *health* to better living, for my club, my community, and my country".
 - (2) Roll call by the secretary, the members responding by reporting on the previously assigned topics.
 - (3) Reading of the minutes of the last meeting by the secretary, which should be adopted as a permanent record by the club when approved.
 - (4) Unfinished business:
 - a. Any unfinished business from the last meeting.
 - b. Report of the committee on club songs and yells.
 - (5) New business:
 - a. Appointment of social committee to plan for some games at future club meetings.
 - b. Anything for the good of the club, such as club tour, club picnic, etc.
 - (6) Songs and yells, led by the song and yell leader.
 - (7) Adjournment for work.
2. Instruction and demonstrations.—The local club leader in charge.
 - (1) Discussion: Selecting the Sow or Gilt. Page 16.
 - a. Breed.
 - b. Individuality.
 - c. Time of breeding.
 - d. The record book.
 - (2) Demonstration:
Learn how to use the score card.
 - (3) Assignment of work for the next meeting:
 - a. Bringing of record books to the meeting.
 - d. Reference: Feeds for Swine. Page 17.
 - c. Assignment of one or more topics for roll call, as:
 - (a) Name the feeds which furnish carbohydrates.
 - (b) Name the feeds which furnish proteins.
 - (c) Report the ration being used and amounts fed.
 - (d) Tell how to prevent worms in pigs.
 - (e) Name a standard club requirement not previously given in response to roll call and give one or more good reasons for the requirement.
 - d. Assignment of an individual demonstration to be given at next meeting. Demonstrate how to mix feeds, using amounts recommended.
3. The social hour, games, etc.

III. Club Meeting.—Feeds for Swine.

1. The business meeting.—The club president in charge.
 - (1) Meeting called to order by the president who leads the club in repeating the 4-H club pledge.
 - (2) Roll call by the secretary, the members responding by giving

a progress report on their home project work, or by reporting on the previously assigned topics.

- (3) Reading of the minutes of the last meeting by the secretary.
 - (4) Unfinished business:
 - a. Unfinished business from the last meeting.
 - b. Report of the social committee.
 - (5) New Business:
 - a. Appointment of a committee on the club round-up.
 - b. Appointment of a committee on the club tour, if needed.
 - (6) Songs and yells.
 - (7) Adjournment for work.
2. Instruction and demonstrations.—The local club leader in charge.
- (1) Discussion: Feeds for Swine. Page 17.
 - a. Composition.
 - b. Feeds.
 - c. Forage.
 - d. Feeding sow until farrowing.
 - e. Record book.
 - (2) Demonstration: How to mix feeds.
 - (3) Assignment of the work for the next meeting:
 - a. Reference: Care of Sow and Litter from Farrowing Until Weaning. Page 23.
 - b. Assignment of one or more topics for roll call, as:
 - (a) Give a ration for a sow that is suckling pigs.
 - (b) Describe a system of ear-marking pigs.
 - (c) Tell how to get pigs to eat grain before weaning.
 - (d) Name a standard 4-H club requirement not previously given in response to roll call and give one or more good reasons for the requirement.
 - (g) Assignment of individual demonstrations to be given at next meeting as tryouts for the club demonstration teams:
 - Give a judging demonstration.
 - Demonstrate how to prepare a hog for the show ring.
 - Demonstrate how hogs may be rid of lice.
 - Give any individual demonstrations previously given before the club.
3. The social hour, games, etc.

IV. Club Meeting.—Care of the Sow and Litter from Farrowing Time Until Weaning.

1. The business meeting.—The club president in charge.
 - (1) Meeting called to order by the president, who leads the club members in repeating the 4-H club pledge.
 - (2) Roll call by the secretary, the members responding by reporting on the previously assigned topics.
 - (3) Reading of the minutes of the last meeting by the secretary.
 - (4) Unfinished business:
 - a. Report of the committee on the club round-up.
 - b. Report of the committee on the pig club tour.

- (5) New business:
 - a.
 - (6) Songs and yells.
 - (7) Adjournment for work.
 - 2. Instruction and demonstrations.—The local club leader in charge.
 - (1) Discussion: Care of the Sow and Litter from Farrowing Until Weaning. Page 23.
 - a. Farrowing house.
 - b. Care after farrowing.
 - c. Care of litter.
 - d. Feeding sow and litter.
 - e. Castration.
 - f. Record book.
 - (2) Demonstration: Individual try-outs for the club demonstration team.
 - (3) Assignment of work for the next meeting:
 - a. References:
 - (a) Care of Pigs from Weaning Until Marketing. Page 27.
 - (b) Diseases and Parasites. Page 31.
 - (c) The Pig Club Tour. Page 35.
 - (d) Showing and Judging. Page 36.
 - (e) Suggested Procedure in the Judging of Livestock. Page 45.
 - (f) Demonstrations. Page 47.
 - (g) Plans for the Club Round-up. Page 8.
 - b. Assignment of one or more topics to be used in response to roll call, as:
 - (a) Give a ration for shoats on pasture.
 - (b) Tell how to construct a self-feeder.
 - (c) Tell how hogs may be rid of lice.
 - (d) Name all the standard 4-H club requirements in response to roll call.
 - c. Giving definite instructions for the pig club tour:
 - (a) Schedule of the tour.
 - (b) Individual try-outs for the club judging team.
 - (c) Explanation of home project work by each club member when visited.
 - 3. Social hour, games, etc.
- V. Club Meeting.—Club Tour; Care of Pigs from Weaning Until Marketing; Diseases and Parasites; Showing and Judging; Plans for the Club Round-up.**
- 1. The business meeting.—The club president in charge. (At noon-day stop.)
 - (1) Meeting called to order by the president who leads the club in repeating the 4-H club pledge.
 - (2) Roll call by the secretary, the members responding by giving a progress report on their home project work, or reporting on the previously assigned topics, and by handing in the record books for use in the club meeting.

- (3) Reading of the minutes of the last meeting by the secretary.
- (4) Unfinished business:
 - a. Unfinished business from the last meeting.
 - b. Final report of the committee on the club round-up.
- (5) New Business:
 - a. Appointment of special committees, if needed, for the club round-up.
 - b. Anything for the good of the club.
- (6) Songs and yells.
- (7) Adjournment for work.
2. Instruction and demonstration.—The local club leader in charge.
 - (1) Discussion:
 - a. Observations regarding the pig club tour.
 - b. Care of Pigs from Weaning Until Marketing. Page 27.
 - (a) Weaning.
 - (b) Feed on pasture.
 - (c) Diseases and parasites.
 - c. Showing and Judging. Page 36.
 - (a) Preparing for show.
 - (b) Showing hogs.
 - (c) Judging hogs; score card.
 - (d) Demonstration of approved swine practices.
 - d. Detailed plans for the pig club round-up.
 - (a) Giving instructions on completing the record books.
 - (b) Stating what each club member should do at the round-up.
3. Social hour, games, etc.

VI. Club Meeting.—The Club Round-up.

The club round-up should be held at the close of the work for the club year.

Each club member should hand in to the local club leader the completed record book so that the results of all the work of the club may be summarized for the year in the Club Secretary's Record Book.

SUGGESTED PUBLIC PROGRAM

The local club leader in charge.

1. Exhibit.—Explanation of placings should be given by the judge, if time permits.
2. Typical meeting by the club, each member giving a summary of his year's work in response to roll call.
3. Talk on the club's achievements by the local club leader, county extension agent, or district extension agent.
4. Team demonstrations.—Selection of the best team to represent the club in county club events.
5. Judging.—Individual try-outs for the club judging team.
6. Making awards, if given.—Presentation of 4-H club achievement pins, etc.
7. Plans for next year.
8. Adjournment.

SUGGESTIONS

Only club members who make a complete report or have their records

up-to-date should be eligible to take part in county or state contests, club camps, etc.

The events of the club round-up and the results of the club work for the year should be carefully prepared and offered to the local newspapers for publication.

REQUIREMENTS OF THE 4-H MARKET PIG CLUB PROJECT

Object.—The object of the Market Pig Club work is to organize boys and girls into groups to demonstrate feeding for economy and rapidity of gain, approved practices in swine management, swine judging and marketing; and to train the members in leadership.

Work Required.—Each club member is required to feed and care for one or more pigs (three barrows preferred) for four months or more, according to instructions of the Extension Service of the Missouri College of Agriculture, and to exhibit the pigs at a round-up at the close of the club work for the year.

Records Required.—Each club member is required to keep a record of the weights of the pig, or pigs, at the beginning and at the close of the club project work, the cost and amount of feeds used, a financial statement of the operation, and to write a story of the club experiences for the year, in a record book provided by the Extension Service of the Missouri College of Agriculture.

Ownership Required.—Each club member is required to own one or more weanling pigs farrowed after March 1 (three barrows preferred) that weigh from 40 to 70 pounds each, sired by a purebred boar, and to provide the necessary feed, which will approximate 800 pounds of grain.

Time Required.—Time required to feed and care for the pigs.

Time for attendance at six or more club meetings.

Time for one all-day club tour.

Time for one day for a club round-up at close of the year's work.

Organization.—The market pig club should be organized in April. The club project work should be started in May and should continue for four or more months until the last of September or early October.

REQUIREMENTS OF THE 4-H PUREBRED GILT CLUB PROJECT

Object.—The object of the Purebred Gilt Club work is to organize boys and girls into club groups to demonstrate the method of properly developing breeding stock, approved methods of swine feeding and management, swine judging and marketing; and to train members in leadership.

Work Required.—Each club member is required to feed and care for a purebred weanling sow pig from the time she weighs about 40

pounds, and to grow her for a breeding gilt, according to instructions of the Extension Service of the Missouri College of Agriculture, and to exhibit her at a round-up at the close of the year's work.

Records Required.—Each club member is required to keep a record of the weights of the pig at the beginning and at the close of the club project work, the cost and amounts of feeds used, a financial statement of the operation, and to write a story of the club experiences for the year, in a record book provided by the Extension Service of the Missouri College of Agriculture.

Ownership Required.—Each club member is required to own a purebred weanling sow pig and to provide the necessary feed to grow it to a weight of about 200 pounds by October.

Time Required.—Time to feed and care for the pig.

Time for attendance at six or more club meetings.

Time for one all-day club tour.

Time for one day for a club round-up at the close of the year's work.

Organization.—The Purebred Gilt Club should be organized in March or April. The club project work should be started in May and should continue until the last of September or early October. (This club should be continued for one year more as a Sow and Litter Club.)

SUGGESTED MEETINGS FOR 4-H PUREBRED GILT AND MARKET PIG CLUBS

- I. **Organization of the Club.**—(See Club Secretary's Record Book.)
 1. The business meeting.—The local club leader in charge.
 - (1) Explanation of the duties of the club officers and members. (See Club Secretary's Record Book.)
 - (2) Election of club officers from the membership of the club: President, Vice-President, Secretary, Song and Yell Leader, and Club Reporter.
 - (3) Selection of a name for the club. (It is suggested that the name be selected as to identify the club and the project.)
 - (4) Selection of a time and place for regular club meetings.
 - (5) Appointment of a committee to work up or select an appropriate song and yell for the club.
 - (6) Adjournment of business meeting for instruction in club work.
 2. Instructions.—The local club leader in charge.
 - (1) Distribution of club circulars and record books and explanation of their use.
 - (2) Explanation of standard 4-H club requirements. (See the Club Secretary's Record Book.)
 - (3) Explanation of the club project requirements for the 4-H Purebred Gilt and Market Pig Clubs. (See requirements in front part of this club circular.)

- (4) Setting club goals, such as:
 - a. (For Purebred Gilt Club).—Every member will raise a gilt to enter in the Sow and Litter Club for the following year.
 - b. (For Market Pig Club).—Every member will try to secure an average daily gain of 1½ pounds for his pig.
 - c. Every member will plan to enroll in the Sow and Litter Club for the following year.
 - d. Each member will attend every club meeting and will make a complete report.
- (5) Discussion of the main club events for the year, such as:
 - a. Holding six or more regular club meetings.
 - b. Making the Pig Club tour.
 - c. Conducting the 4-H Club Round-up.
 - d. Exhibiting, judging and demonstrating at fairs.
 - e. Attending and taking part in the State 4-H Club Round-up.
 - f. Attending the county or district camp, etc.
- (6) Stating specifically what each member must do to start the work.
- (7) Discussion: Selecting the Pig.—Page 16.
- (8) Assignment of work for the next meeting.
 - a. Assignment of the National 4-H Club pledge to be learned by all members before the next meeting.—(See the pledge in the suggested outline of second club meeting.)
 - b. Bringing of record books to the meeting.
 - c. Reference: Selecting the Pig. Page 16.
Score Card. Page 43.
 - d. Assignment of one or more topics to be used in response to roll call, as:
 - (a) State the weight of the pig when starting the project.
 - (b) Name the good and the bad points of the pig as indicated by the score card.
 - (c) Name a standard 4-H club requirement and give one or more good reasons for the requirement.

3. The social hour, games, etc.

II. Club Meeting.—Selecting the Pig.

1. The business meeting.—The club president in charge. Reference: Duties of club officers, Club Secretary's Record Book.
 - (1) Meeting called to order by the president, who leads the club members in repeating the 4-H club pledge, as follows: "I pledge my *head* to clearer thinking, my *heart* to greater loyalty, my *hands* to larger service, and my *health* to better living, for my club, my community, and my country."
 - (2) Roll call by the secretary, the members responding by reporting on the previously assigned topics.
 - (3) Reading of the minutes of the last meeting by the secretary, which should be adopted as a permanent record by the club when approved.
 - (4) Unfinished business:

- a. Any unfinished business from the last meeting.
- b. Report of the committee on club songs and yells.
- (5) New business:
 - a. Appointment of a social committee to plan for some games at future club meetings.
 - b. Anything for the good of the club, such as club tour, club picnic, etc.
- (6) Songs and yells, led by the song and yell leader.
- (7) Adjournment for work.
- 2. Instructions and demonstrations.—The local club leader in charge.
 - (1) Discussion: Selecting the Pig. Page 16.
 - a. Breed.
 - b. Individuality.
 - c. The record book.
 - (2) Demonstration.
 - a. Learn to use the score card.
 - (3) Assignment of work for the next meeting:
 - a. Bringing of record books to the meeting.
 - b. Reference: Feeds for Swine. Page 17.
 - c. Assignment of one or more topics for roll call, as:
 - (a) Name the feeds which furnish carbohydrates.
 - (b) Name the feeds which furnish proteins.
 - (c) Name a standard 4-H club requirement not previously given in response to roll call and give one or more good reasons for the requirement.
 - d. Assignment of individual demonstration to be given at next meeting: Demonstrate how to mix feeds, using the amounts recommended.
- 3. The social hour, games, etc.

III. Club Meeting.—Feeds for Swine.

- 1. The business meeting.—The club president in charge.
 - (1) Meeting called to order by the president who leads the club in repeating the 4-H club pledge.
 - (2) Roll call by the secretary, the members responding by giving a progress report on their home project work, or by reporting on previously assigned topics.
 - (3) Reading of the minutes of the last meeting by the secretary.
 - (4) Unfinished business:
 - a. Unfinished business from the last meeting.
 - b. Report of the social committee.
 - (5) New business:
 - a. Appointment of a committee on the club round-up.
 - b. Appointment of a committee on the club tour, if needed.
 - (6) Songs and yells.
 - (7) Adjournment for work.
- 2. Instruction and demonstrations.—The local club leader in charge.
 - (1) Discussion: Feeds for Swine. Page 17.
 - a. Composition.
 - b. Feeds.
 - c. Forage.
 - d. Record book

- (2) Demonstration: How to mix feeds.
 - (3) Assignment of the work for the next meeting:
 - a. Reference: Care of Pigs from Weaning Until Breeding. (About Nov.). Page 27. Parasites and Diseases. Page 31.
 - b. Assignment of one or more topics for roll call, as:
 - (a) Report the ration being used for the gilt and the amount being fed.
 - (b) Name in order the best pastures for hogs.
 - (c) Name a standard 4-H club requirement not previously given in response to roll call and give one or more good reasons for the requirement.
 - c. Assignment of individual demonstrations to be given at next meeting as try-outs for the club demonstration teams:
 - (a) Give a judging demonstration.
 - (b) Demonstrate how to prepare a hog for the show ring.
 - (c) Demonstrate how hogs may be rid of lice.
 - (d) Give any individual demonstrations previously given before the club.
3. The social hour, games, etc.

IV. Club Meeting.—Care of Gilt from Weaning to Breeding; Parasites and Diseases.

- 1. The business meeting.—The club president in charge.
 - (1) Meeting called to order by the president, who leads the club members in repeating the 4-H club pledge.
 - (2) Roll call by the secretary, the members responding by reporting on the previously assigned topics.
 - (3) Reading of the minutes of the last meeting by the secretary.
 - (4) Unfinished business:
 - a. Report of the committee on the club round-up.
 - b. Report by the committee on the pig club tour.
 - (5) New business:
 - a.
 - (6) Songs and yells.
 - (7) Adjournment for work.
- 2. Instruction and demonstrations.—the local club leader in charge.
 - (1) Discussion: Care of the Gilt from Weaning to Breeding. Page 27. Parasites and Diseases. Page 31.
 - a. Weaning.
 - b. Feed on pasture.
 - c. Diseases and parasites.
 - d. Record book.
 - (2) Demonstrations: Individual try-outs for the club demonstration team.
 - (3) Assignment of work for the next meeting.
 - a. Reference:
 - (a) The Pig Club Tour. (Preferred in August). Page 35.
 - (b) Showing and Judging. Page 36.
 - (c) Suggested Procedure in the Judging of Livestock. Page 45.

- (d) Demonstrations. Page 47.
- (e) Plans for the Club Round-up. Page 15.
- b. Assignment of one or more topics to be used in response to roll call, as:
 - (a) Tell how hogs may be rid of lice.
 - (b) Describe one method of worming pigs.
 - (c) Name all the standard 4-H club requirements in response to roll call.
- c. Giving definite instructions for the club tour:
 - (a) Schedule of the tour.
 - (b) Individual try-outs for the club judging team.
 - (c) Explanation of home project work by each club member when visited.

3. The social hour, games, etc.

V. Club Meeting.—The Pig Club Tour; Showing and Judging; Demonstrations; Plans for the Club Round-up.

1. The business meeting.—The club president in charge. (At noon-day stop.)

- (1) Meeting called to order by the president who leads the club in repeating the 4-H club pledge.
- (2) Roll call by the secretary, the members responding by giving a progress report on their home project work, or reporting on the previously assigned topics and by handing in the record books for use in the club meeting.
- (3) Reading of the minutes of the last meeting by the secretary.
- (4) Unfinished business:
 - a. Unfinished business from the last meeting.
 - b. Final report of the committee on the club round-up.
- (5) New business:
 - a. Appointment of special committees, if needed, for the club round-up.
 - b. Anything for the good of the club.
- (6) Songs and yells.
- (7) Adjournment for work.

2. Instruction and demonstrations.—The local club leader in charge.

- (1) Discussion:
 - a. Observations regarding the pig club tour.
 - b. Showing and Judging. Page 36.
 - (a) Preparing for show.
 - (b) Showing hogs.
 - (c) Judging hogs; score card.
 - (d) Demonstration of approved swine practices. Page 47.
 - c. Detailed plans for the pig club round-up.
 - (a) Giving instructions on completing the record books.
 - (b) Stating what each member should do at the round-up.

3. The social hour, games, etc.

VI. Club Meeting.—The Club Round-up.

The club round-up should be held at the close of the work for the club year.

Each club member should hand in to the local club leader the completed

record book so that the results of all the work of the club may be summarized for the year in the Club Secretary's Record Book.

SUGGESTED PUBLIC PROGRAM

1. The local club leader in charge.
2. Exhibit—Explanation of placings should be given by the judge, if time permits.
3. Typical meeting by the club, each member giving a summary of his year's work in response to roll call.
4. Talk on the club's achievements by the local club leader, county extension agent, or district extension agent.
5. Team demonstration—Selection of the best team to represent the club in county club events.
6. Judging: Individual try-outs for the club judging team.
7. Making awards, if given.—Presentation of 4-H club achievement pins.
8. Plans for next year.
9. Adjournment.

SUGGESTIONS

Only club members who make a complete report or have their records up to date should be eligible to take part in county or state contests, club camps, etc.

The events of the club round-up and the results of the club work for the year should be carefully prepared and offered to the local newspapers for publication.

Selection of the Sow or Gilt

BREED

There is no *best* breed of hogs. As a rule, the boy will make the most progress, who selects a sow of the breed he likes best. It is usually preferable to select a sow of the breed most extensively raised in the home community. By doing this it is easier to buy good breeding stock close at home. There will also be a market for breeding stock produced later on. It is desirable, when possible, for the entire club to use sows of the same breed, as this makes it easier to secure the services of a good boar at a reasonable cost.

INDIVIDUALITY

The club member in selecting a gilt or sow for the Sow and Litter Club, should select one that is growthy with plenty of size and smoothness. The best brood sow is usually one with plenty of length, a strong well arched back, good depth of body, smooth shoulders and neck of medium length. The sow should be broad between the eyes, the ears of medium size, and the face and snout broad rather than pointed. The hams should be deep and broad, and the width should be the same from shoulder to hams.

It is very important that the sow have a good set of feet and legs. The legs should be squarely placed under each corner of the body and show plenty of bone development. The sow should stand well upon her toes with fairly short straight pasterns.

The club member should avoid the short "chuffy" gilt, as well as one that is too leggy and shallow bodied. He should avoid the gilts with weak backs, fine bone and weak pasterns, as these defects practically always get worse as the sow grows older.

TIME OF BREEDING

A gilt that has been properly grown may be bred when eight to ten months old. Most hog men consider a gilt weighing from 180 to 200 pounds, and not fat, as large enough to breed.

If the club member wants his sow to farrow during the first week in March, she must be bred the second week in November, as the average period between breeding and farrowing time is 112 to 114 days. This period is called the gestation period. It is very necessary to keep a record of the breeding date so that the club member can figure when the sow is to farrow and take care of her accordingly.

The greatest care should be observed in selecting a boar with which to mate the gilt. The very best purebred boar that can be found in the community should be used. The boar should be well developed and at least eight to ten months old.

Feeds for Swine

In the production of pork it has been found that about 85% of the total cost is for feed, so this affords the best place for economy in this business. Experiments show that by a proper understanding and usage of the various feeds that better than average results may be expected.

COMPOSITION

The value of a feed depends upon what it is made up of, how much of it is digested, and its palatability, or, how well it is liked by an animal. All feeds contain carbohydrates, protein, fats, fiber, and mineral matter or ash, but the amounts of each in a feed largely determine its value. All of these nutrients are essential and ordinarily no one feed contains them in just the right amounts to produce the most economical gains. Therefore, a combination of several feeds is necessary to balance these nutrients, so that an under supply of any one is not given.

Carbohydrates.—Carbohydrates furnish the material for heat, and energy for work. Sugar and starch are called carbohydrates. When an

extra amount of carbohydrate is eaten by an animal it is stored as fat.

Protein.—This is the part of the feeding stuffs which help to build blood, tissues, muscles, vital organs, skin, hair, milk, etc.

Fats.—These furnish heat and energy and are stored as fat.

Fiber.—Fiber is the woody and less digestible part of a feed. Its value is to give bulk to a feed.

Mineral Matter or Ash.—Mineral matter forms the larger part of the bony skeleton, and is valuable in the development of other parts of the body.

FEEDS

Corn is the most palatable, the richest in fuel value and generally is the cheapest of any of the farm grains in the Corn Belt. The make-up of the hog is such that concentrates as grain are the chief feed used in their production, so corn is the basal ration around which hog feeding methods are built.

Corn, in some form, should make up the main part of the ration, but being low in protein and mineral, some feeds high in these two nutrients should be fed along with it. Rapid and economical gains cannot be made on corn alone.

Oats have a special value in giving bulk to a ration. When fed in large quantities to young pigs they have a feeding value of one-half that of corn, bushel for bushel. They are best used in limited amounts to take the place of shorts, along with corn and tankage or milk fed on pasture. They should be fed ground and are very desirable for growing gilts and boars to prevent too rapid fattening at an early age. They are higher in protein and ash than corn.

Wheat should be fed ground and is very well liked by hogs. In some seasons wheat is cheap in comparison with corn and when fed with tankage has a slightly higher feeding value. Coarse grinding increases its value from 16 to 22 per cent while soaking improves it but little.

Wheat Middlings or Shorts are fairly high in protein and are best used to make up about one-third of a ration of corn, shorts, and tankage or milk, for when fed with corn alone, to pigs not on pasture, they do not generally give as good gains as the same amount of money invested in tankage. However, corn and shorts on good alfalfa or clover pasture will give fairly good results.

Wheat Bran is high in protein, but due to its bulk is better suited to breeding stock, than to growing or fattening pigs. Its bulk and

laxative properties make it especially valuable when used as a part of the winter ration, for the brood sow, and for boars. For young pigs it is too bulky to be economical or productive of rapid gains when fed in too large amounts.

Tankage or Meat Meal is a packing house by-product and the best grades contain 60 per cent of protein. Due to its high protein content it is an excellent feed to use with corn for hogs, and a small amount will make up for the lack of protein and mineral in the corn. One-third to one-half pound daily per pig is usually sufficient. The younger the pig the more tankage should be used in proportion to corn. The standard corn belt fattening ration is corn ten parts and tankage one part.

Milk has no superior in furnishing protein and mineral when fed with corn. Skimmilk and undiluted buttermilk have the same feeding value and the amount required decreases in proportion as the pigs mature, and require less protein. Just after weaning, 4 to 6 pounds of milk to each pound of corn will give the best results. For pigs 50 to 100 pounds, 2½ to 3 pounds of milk to 1 pound of corn, from 100 to 150 pounds, 2 to 2½ pounds, and for pigs weighing 150 to 200 pounds, 1½ to 2 pounds for each pound of corn is recommended.

Linseed Oil Meal is widely used for the same purpose as tankage or milk. It contains about one-half as much protein as tankage, so almost twice as much is required to balance a given ration. It is best suited to hogs weighing over 100 pounds, but in general is not so satisfactory for feeding with corn as tankage or milk as it is relatively low in mineral content.

Soybeans contain nearly as much crude protein as linseed meal and are becoming widely used as a hog feed with corn. Soybeans are low in mineral and their high fat content or oil has sometimes made them unpalatable to hogs, so they are not entirely satisfactory when used whole in a self-feeder. Soybeans may be ground with corn to get the hogs to eat enough of them. A mineral mixture should be fed with them for best results. (See paragraph concerning minerals.)

FEEDING

In the above, we have considered the feeds most commonly used in this section of the country and those which will probably be available on your farm. Remember that by giving variety you will get best results, so several feeds in the proper combination should be used. In addition to the ordinary feeds it is a good plan to furnish a mineral for hogs, as the grains which are their chief food are low in this nutrient. Of the many mineral mixtures now in use, the following simple one is satisfactory, "Equal parts of wood ashes or ground limestone, salt,

and either bonemeal, ground rock phosphate, or acid phosphate". One-half to one pound of the mineral to each 100 pounds of grain is sufficient and may be fed in a box for this purpose.

FORAGE CROPS

Pasture in pork production is valuable for all swine, but for young pigs its benefits are outstanding. Pastures are rich in the body building

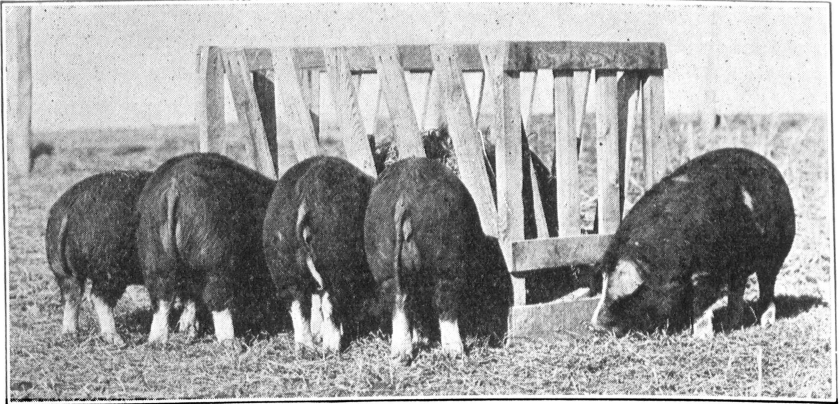


Fig. 1.—A good forage cuts down feed costs for the club litter.

materials so important to young growing animals. The succulent feed and exercise keep them thrifty and in good condition.

During the growing period, it is very necessary that pigs be kept on ground that is not infested with eggs of the roundworm and other parasites. By proper use of forage crops, this serious trouble may largely be prevented. This is a more satisfactory method than to treat the pigs after they are infested.

Due to the excellent character of the feed of forage crops, greater gains are made on a given amount of grain when fed on pasture, than where pasture is not provided. The amount of expensive protein rich feeds such as milk, tankage, or linseed meal required, is only about half as much on good pasture as in dry lot, therefore, the gains made are usually more economical.

Of the forages that are grown on Missouri farms, it is recommended as the result of experimental work that alfalfa, clover, rape, or bluegrass be used. These, with the exception of bluegrass, furnish good succulent feed during the hot summer months and up until frost. Bluegrass makes excellent spring and fall forage. Shelter from the hot sun should be provided, as well as an abundance of fresh, pure water.

FEED AND CARE OF SOW FROM BREEDING TO FARROWING

After the sow is bred there are three essentials to bear in mind in caring for her. She must have proper feed, plenty of exercise, and good shelter. The most common fault with feeds given brood sows is that they are made up too largely of corn with not enough protein feed, such as milk and tankage, and not enough bulky feed, such as wheat, bran, alfalfa, or clover.

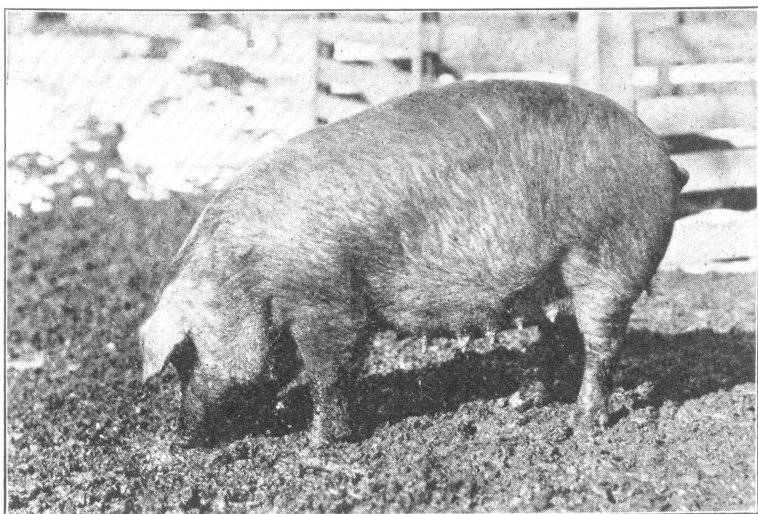


Fig. 2.—Proper amount of fat for sow to carry before farrowing.

The bred sow needs plenty of protein and mineral matter because these elements are needed in the development of the unborn pigs in addition to that required by the sow herself. Young sows need more protein and mineral than older brood sows, if they are to complete their growth, in addition to nourishing the embryo pigs.

Brood sows fed corn alone cannot be expected to produce large thrifty litters. At the Iowa Experiment Station it was found that pigs from gilts fed ear corn alone weighed 1.74 pounds at birth only 68 per cent strong, while the pigs from gilts fed tankage and clover hay with corn averaged 2.18 pounds at birth and 92 per cent were strong.

SUGGESTED RATION FOR BRED SOW

Ration 1

Corn, 10 parts by weight;
 Tankage, 1 part;
 Fine legume hay, fed in rack.

Ration 3

Ear corn, 1 bushel;
 Protein supplement— Tankage, 2 parts;
 (5 pounds) Linseed oil meal,
 1 part;
 Alfalfa meal, 1
 part.

Ration 5

Corn, 2 parts by weight;
 Shorts, 1 part;
 Skimmilk, 2 parts.

Ration 7

Corn, 6 parts by weight;
 Ground soybeans, 1 part;
 Legume hay, fed in rack.

Ration 2

Corn, 8 parts by weight,
 Shorts, 4 parts;
 Bran, 1 part;
 Tankage, 1 part.

Ration 4

Corn, 1 part by weight;
 Skimmilk, 3 parts.

Ration 6

Corn, 8 parts by weight;
 Oats, 3 parts;
 Tankage, 1 part.

Ration 8

Corn, 3 parts by weight;
 Ground wheat, 3 parts;
 Oats, 3 parts;
 Tankage, 1 part.

Ration 9

Ear corn, 1 bushel;
 Protein supplement— Tankage, 2 parts;
 (4 pounds) Linseed oil meal, 1 part.

Amount to Feed.—The bred sow should be fed enough to keep her in good condition, but not too fat. A sow that is too fat will be sluggish and apt to kill her pigs by lying down on them. On the other hand, if she is too thin, she will not give enough milk to properly feed the young pigs.

About 1½ pounds of grain per 100 pounds live weight will give good results for the bred sow if she has access to good legume hay or pasture.

Exercise.—A sow to produce strong healthy pigs must take plenty of exercise. She should by all means have access to good bluegrass or rye pasture in winter. She can be induced to take exercise by feeding her some distance from the sleeping quarters.

The club member will want to keep his sow separate from the rest of the breeding herd at feeding time so that he can keep record of feed, but should turn her out during the day and allow her to get plenty of exercise.

About one week before farrowing the grain ration should be cut down nearly one-half. A little more laxative, as well as a more bulky

ration should be provided at this time. When corn forms the major portion of the ration, wheat bran can be substituted for the corn and thus provide a cooling and laxative ration, that is very much to be desired.

Care of Sow and Litter From Farrowing to Weaning

THE FARROWING HOUSE

Sanitation.—About one week before farrowing time, the sow should be placed in the house in which she is to farrow. The floor and walls of this house should be thoroughly scrubbed with boiling water and lye to kill all worm eggs, one pound lye to ten gallons boiling water should be used. Before the sow is placed in the house, it is well to wash her sides and udder with warm water and soap in order to wash off filth and worm eggs that might otherwise be taken into the body of the young pigs when they first suck the sow.

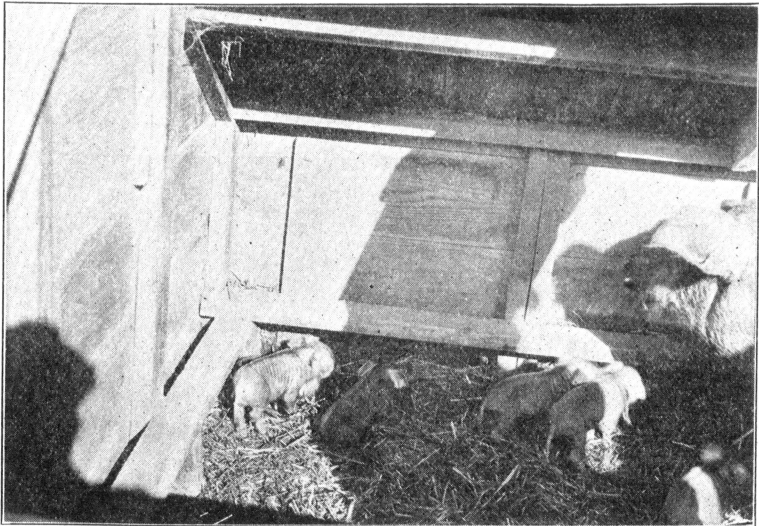


Fig. 3.—Interior of farrowing house, showing guard rail and small amount of bedding—both of which prevent losses at farrowing time.

Guard Rail.—Before the sow farrows, a guard rail should be constructed inside the hog house. A 2x4 raised 8 inches from the floor and held 8 inches from the wall will prevent the sow from smashing the pigs

when she lies down next to the wall. The picture on page 23 illustrates this.

Bedding.—The amount and kind of bedding to use is rather important. Fine straw that will lay close to the floor should be used. Only enough to make a thin covering over the floor is needed. About a bushel of wheat chaff or cut straw will be enough. If too much coarse straw is used the young pigs may get tangled up and lost and never find their way to the sow's udder to nurse. After the pigs are about two weeks old the amount of bedding may be increased. The bedding must at all times be kept perfectly dry. This will require that it be changed every few days in good weather and probably every day in rainy or snowy weather.

CARE AFTER FARROWING

Feed After Farrowing.—Great care should be taken in feeding the sow immediately after farrowing. On the first day give her plenty of water with the chill taken off, but no feed. On the second day give her a thin slop made of a double handful of bran and ship. Increase this feed very gradually until by the time the pigs are two weeks old the sow will be getting all the feed she wants.

Pig Eating.—Sometimes a sow that has not had sufficient protein feed before farrowing will eat her pigs. Feeding salt pork may stop this.

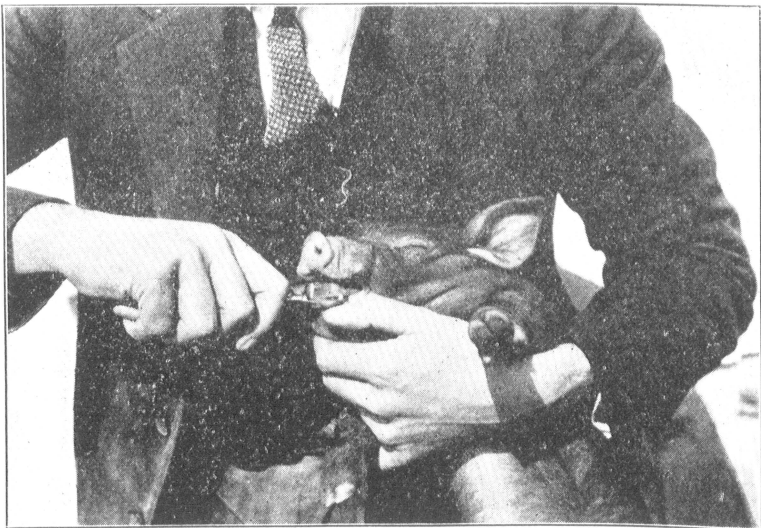


Fig. 4.—Removing the young pig's wolf teeth.

A little dip or coal oil applied lightly to the pigs may prevent it. Do not allow the sow to eat her afterbirth as this may cause the pig-eating habit. Once the habit is acquired, the fattening pen is the best solution of the problem unless the sow is very valuable.

CARE OF THE LITTER

While the pigs are young, proper care, feed, and attention will mean success with the growing pigs and help a great deal in making quick growing hogs.

Wolf Teeth.—Soon after the sow is through farrowing, examine the mouths of the pigs and you may find some long, sharp, tusklke teeth well back in the pig's mouth. These may be broken off even with the gums with a pair of nippers. These needle or wolf teeth sometimes cut the sow's teats and the noses of the other pigs, causing sores.

Marking the Pigs.—All breeders of purebred hogs must have some plan of marking the pigs before they are weaned so that they can be accurately identified later on, when they are old enough to be recorded. It is not practical to use metal ear tags on young pigs, so a simple method of marking the ear is used:

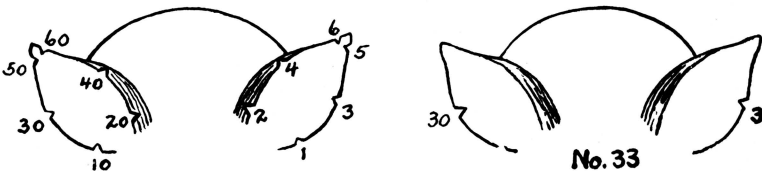


Fig. 5.—At your left: position value of notches in pig's right and left ears. At your right: notches for No. 33.

	Left Ear	Right Ear
Lower side, next head	1	10
Lower side, midway between head and tip ..	3	30
Lower side, tip	5	50
Upper side, next to head	2	20
Upper side, midway	4	40
Upper side, tip	6	60

Two notches would mean addition of the two numbers represented. Thus a notch midway between head and tip of lower side of right ear and another notch midway between head and tip on lower side of left ear would indicate $30 + 3 = 33$, the number of the pig.

Scours.—While the pigs are small watch them closely for scours. This trouble is caused by indigestion due to changing the sow's feed or giving her too rich feed. It may also be caused by damp, dirty, living

quarters and by using, sour and unsanitary feeding troughs or buckets.

You can prevent scours by sanitation and careful feeding. If scours develop, cut down the feed of sow and pigs; give sow 2 teaspoonfuls of copperas in her feed for a few days and if necessary give the little pigs a small tablespoonful of castor oil each.

Thumps.—The pigs must have sunshine and plenty of exercise or they will get too fat and lazy and thumps will develop. The individual house, placed in a bluegrass lot, furnishes the best place for the young pigs, as this allows for the sunshine and exercise so indispensable and also reduces the chances of their being infested with eggs of the roundworm.

FEEDING SOW AND LITTER

Creep.—When the pigs are about three weeks old they begin to try to eat with the sow. At this time, it is a good plan to build a creep for them to eat in, separate from the sow. The creep is merely a small

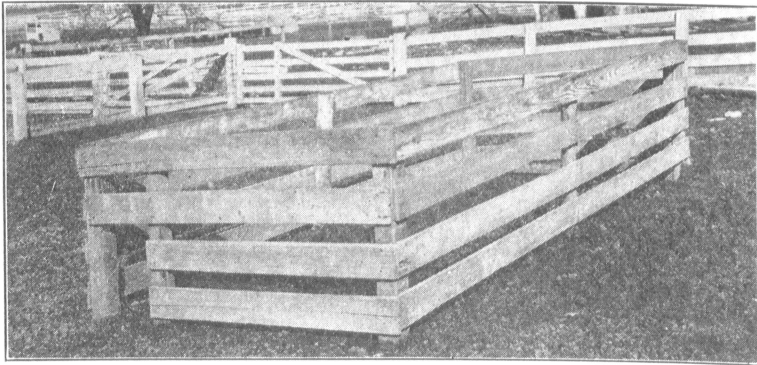


Fig. 6.—Creep where suckling pigs may be given additional feed.

feeding pen built so that the pigs can enter and the sow cannot. A square pen 8 feet by 8 feet will be large enough.

Shelled corn and sweet skim milk can be used to feed the pigs at first. They should be fed three to four times daily and only what they will clean up promptly. As the pigs grow older, corn, shorts, and tankage can be mixed together and placed in a feeder for them. There is nothing so good as milk for them, but they should have only what they clean up and it should not vary in the degree of sourness or they are apt to have indigestion. Sweet milk direct from the separator is preferable.

Feed for Sow.—After the pigs are two weeks old, the sow should have all the feed she will clean up. If she loses weight too rapidly it is best to feed her three times a day. A good milker will loose around twenty to thirty pounds while nursing her pigs.

Rations for sows suckling pigs must be relatively high in protein and mineral as protein makes milk and that is what we want for the young pigs.

Ration 1

Corn, 8 parts by weight;
Shorts, 4 parts;
Tankage, 1 part, or skim milk 15 or
linseed oil meal 2 in place of tankage.

Ration 2

Corn, 6 parts by weight;
Ground wheat, 4 parts;
Tankage, 1 part.

Ration 3

Corn, 1 bushel;
Supplement { Tankage, 3 parts;
(5 pounds) { Linseed oil meal, 1 part;
 { Alfalfa meal, 1 part.

Ration 4

Corn, 1 bushel;
Supplement } { Tankage, 3 parts;
(4 pounds) } { Linseed oil meal, 1 pt;
 } Pasture or legume hay, self fed.

CASTRATION

The best time to castrate boar pigs is before they are weaned when they are between six and eight weeks old. At this age there is less shock to the pig and, while suckling its dam, the chances are that it will be more thrifty and in better condition and will recover more quickly than when the operation is performed after weaning.

Select a clear, dry day for the work. Carry the pig out to the clean sod and be as clean as possible with knife and hands. Use freely of some disinfectant, as a 3 per cent solution of compound cresol or lysol. Keep the castrated pigs away from mud wallows and dusty beds until the wounds have healed.

Unless you have an exceptionally good individual in the litter, do not save any of the pigs for boars. They are a good deal of trouble to grow out and as a rule are hard to sell. It is best to leave the production of boars to breeders with necessary pastures and equipment and long years of experience.

Care of Pigs From Weaning Until Marketing or Breeding

WEANING

Pigs should be weaned when 8 to 10 weeks of age. If they have been creep-fed they will not miss the sow's milk very much. If they can have plenty of skim milk at weaning time it is of great help. A few days before the pigs are weaned the sow's ration should be cut in half. The sow should be removed from the pigs, leaving the pigs where they are accustomed to be. The sow should be placed in dry lot and scantily fed until the udder is practically dried up.

At the time the club member weans his pigs they should weigh around forty pounds apiece. From this time until they weigh about



Fig. 7.—A clean grassy lot, with individual houses, providing exercise and sunshine, aids in keeping pigs thrifty.

100 pounds they should continue to have a ration containing a large amount of protein feed to build the frame-work for the fat that the finished hog should carry.

FEED ON PASTURE

In order to make the most economical gains the pigs should be fed on some good forage crop as alfalfa, clover, or rape. Good forage will probably cut down the grain needed for 100 pounds gain by one-fourth. The early litter should, however, be given about all the feed they will use on this forage, in order to make them gain fast enough to be ready for the early fall market, which, as a rule, is better than later on when the heavy runs of spring pigs begin.

Some good rations for shoats on pasture are as follows:

Ration 1

Shelled corn, 1 part by weight;
Skimmed milk, 2 parts.

Ration 3

Shelled corn, 9 to 12 parts by weight;
Tankage, 1 part.

Ration 2

Shelled corn, 6 to 9 parts by weight;
Wheat shorts, 2 parts;
Tankage, 1 part.

Ration 4

(For shoats not on pasture)
Corn, 1 bushel;
Supplement }
(6 pounds or } { Tankage, 3 parts;
1 ¼ gallons } { Linseed oil meal, 1 part;
by measure) } { Alfalfa, meal, ½ part.

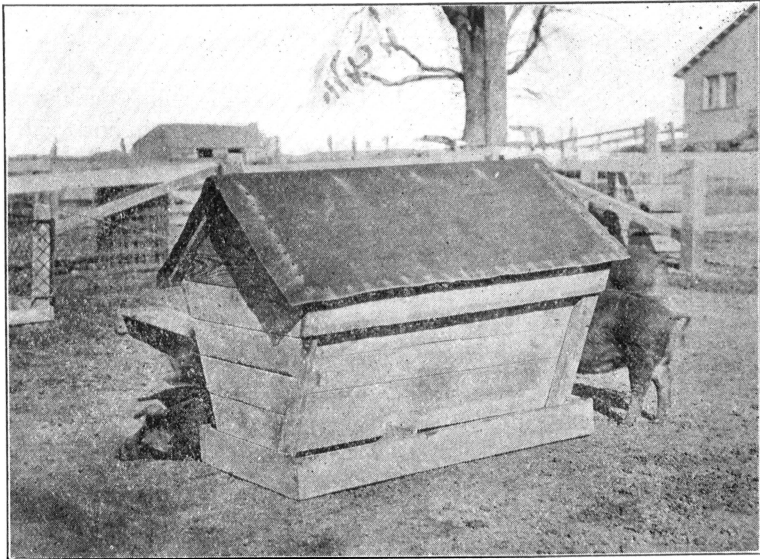


Fig. 8.—Self-feeder suitable for feeding 125-pound shoats.

Amount of Feed.—After the feed has been mixed the amount to give the pig each day should be measured, giving half in the morning and half in the evening. A heaping quart cup of Rations 2 and 3 will weigh about 1.7 pounds. The pigs should have $3\frac{1}{2}$ to 4 pounds of feed per day, for each 100 pounds of live weight, when on pasture.

Self-feeder.—When the club litter has reached the weight of 100 pounds or thereabouts per hog they are ready to be pushed as rapidly as possible. From this time on a wider ration or one containing a larger proportion of fattening feed, as corn, and less tankage or milk may be fed.

The self-feeder is often a valuable asset at this time, especially if you do not have good forage. If you have good forage it will be best to hand-feed and thus get the pigs to graze more. Pigs on self-feeders are inclined to lie around the feeder and not make use of the forage. The self-feeder will give the maximum finish in the minimum time. When pigs are put on a self-feeder too young they are apt to become finished too soon. At the weight of 100 pounds they are about the right size. As the pig matures the amount of protein necessary decreases. By offering free choice in a self-feeder the pig will consume about the amount of protein he needs. Pigs on self-feeder should be watched and if they begin to get too fat the feed will have to be mixed so as to force them to eat more protein feed. The self-feeder saves labor if properly built. The pigs must be on full feed before they are put on the self-feeder. Missouri Experiment Station Circular 118 will give you plans for building the feeder.

In case you do not care to build a self-feeder, it will probably pay you to feed three times daily, feeding slightly less at noon in hot weather than at morning and night. By feeding three times daily, the gain will be a little faster and paunchiness may be avoided in the pig. When hand-feeding do not give more at one feed than the pigs will clean up. By all means feed at the same time each day if you expect good results.

Average Gains for Different Weight Pigs.—The following table is based on a large number of feeding trials with fattening hogs. By studying it carefully you can have an idea what to expect from your pigs. By using purebred pigs and feeding properly the club member ought to beat these averages. You will note in the last column that as the hog gets larger it takes more feed for 100 pounds gain, so it will probably pay you to sell when your pigs reach 200 pounds or thereabouts.

AVERAGE DAILY GAIN BY PIGS AT DIFFERENT WEIGHTS

(All amounts are in pounds)

Wt. of pigs	Average feed eaten per day	Feed eaten daily per 100 lbs. live wt.	Average daily gain	Feed for 100 lbs. gain
15-50	2.2	6.0	.8	293
50-100	3.4	4.3	.8	400
100-150	4.8	3.8	1.1	437
150-200	5.9	3.5	1.2	482
200-250	6.6	2.9	1.3	498
250-300	7.4	2.7	1.5	511
300-350	7.5	2.4	1.4	535

Rations for Fattening Period.—The following rations may be used on pasture:

I.
Corn, 9 parts;
Shorts, 2 parts;
Tankage, 1 part.

II.
Corn, 12 parts;
Tankage, 1 part.

III.
Corn, 2 parts;
Shorts, 1 part;
Skim milk, 4 parts.

IV.
(In dry lot, use ration for fattening period.)
Corn, 1 bushel;
Supplement }
(6 pounds or } { Tankage, 2 parts;
1¼ gallons } { Linseed oil meal or
by measure.) } { cottonseed meal, 1 part;
 } { Alfalfa meal, 1½ parts.

Shade.—When pigs are fed on pasture during the summer they should by all means have shade and water close to the forage plot if good results are to be expected. An individual hog house with sides that open out can be used. Anything that will keep off the sun and allow full sweep of the breeze under the shade may be used.

When your litter reaches the 100-pound mark, if you have an unusually good gilt in the judgment of your Local Leader and County Agent, you had better take her away from the rest of the litter before she gets too fat, and grow her out rather than fatten her. She can be forced to graze more and thereby cut down the cost of her feed. Use the same ration for her that was given the pigs after weaning, as you want her to go on developing framework.

DISEASES AND PARASITES

Worms are probably the worst enemy of the growing pig. By proper sanitation, that is, providing clean quarters for farrowing, and clean pastures, the young pigs may escape infestation with worms. Moreover, they will not be so liable to become infested with bacterial diseases, which cause sore mouth and diarrhea.

Within a few weeks after farrowing move your sow and her litter to a clean lot or pasture; and, after weaning, still keep your pigs away from old hog lots. The worm embryos which cause worms in pigs are picked up by the young pigs while rooting around in infested lots. All old hog lots contain many of these embryonic worms.

Young pigs suffer much more from worms than older ones. Besides the actual damage that the worms do, the pigs are left in such a weakened condition that they are more likely to suffer from other troubles and diseases. By keeping your pigs in clean places as suggested,

you can largely avoid this trouble, but if your pigs are not doing well, consult your County Leader to see if your pigs are suffering from worms. If so, they may be treated at a reasonable cost.

Dr. L. S. Backus of the Veterinary Department, University of Missouri, College of Agriculture in a recent letter to the writer recommended as a treatment for worms one teaspoon of oil of chenopodium (Am. Worm. Seed Oil) to 1 oz. of castor oil for a 100-pound pig. One-half of this dose would be enough for a 50-pound pig. The oils should be mixed well together and given in a 1-ounce dose syringe with a 9-inch nozzle or with a tablespoon.

Missouri Agriculture Extension Service Circular 13 has the following to say concerning worms and lice on hogs.

"What are symptoms of wormy hogs? Good appetite without proper gain; small pigs may suffer from convulsions; cough and thumps may indicate worms; passage of worms with excrement; post-mortem examination of a pig showing worms within the intestine is an indication for treatment of the herd.

"How should hogs be treated for worms? Hogs if properly handled, are comparatively easy to treat for worms. The following formulas are recommended:

Formula 1

Santonin.....	1 dram
Calomel.....	2 drams
Powdered areca nut.....	5 ounces

Mix

Note.—Areca nut is an efficient worm remedy but it loses its strength and care should be exercised to procure the fresh drug.

Dose.—One heaping teaspoonful for every 100 pounds weight, or the formula is sufficient for 20 pigs averaging from 50 to 100 pounds.

Directions.—The pigs should be hungry when the remedy is given. Withhold all feed for 24 hours. Give the medicine in a light feed of wet mash and after 6 hours give one ounce of epsom salts, per 100 pounds weight, mixed in slop. This treatment will be found very effective. If the pigs are of different sizes, they should be divided into lots so that pigs of equal weight will be together. This will enable each pig to get its share of the remedy.

Formula 2

Turpentine

Dose.—One-half ounce (or one tablespoonful) per pig. One pint of turpentine will be sufficient for one dose for about 30 pigs weighing from 50 to 100 pounds.

Directions.—Prepare pigs for treatment as recommended under Formula 1. Give one tablespoonful turpentine, per 100 pounds weight, mixed with a light feed of thick mash or skim milk. Repeat for three successive feeds. Follow last dose with one ounce epsom salts, per 100 pounds weight, mixed with slop.

There is no danger of over-dosing with turpentine, since if too much is given the pigs will refuse to eat the mixture.

Formula 2 is cheap and easily obtained. Turpentine when used as directed has been found a safe and effective worm remedy for the hog.

Some reports hold that turpentine and copper sulphate have in some cases produced abortion of pregnant sows. We have no conclusive evidence, however, that such is the case.

Lice on Hogs.—How may hogs be rid of lice? During warm weather the animals may be dipped or sprayed with a 2% solution of some commercial preparation such as Liquor-Cresolis Compound, Creolin, Kreso. Three ounces to one gallon makes about a two per cent solution.

An emulsion dip may be prepared as follows:

Kerosene oil.....	2 gallons
Soap.....	8 ounces
Water.....	1 gallon

Directions.—Make the water hot to dissolve the soap and while it is hot add to the kerosene, stirring the mixture rapidly for ten minutes. One gallon of this mixture is then mixed with nine gallons of water. The preparation may be used in a dipping tank or may be sprinkled over the hogs with a spray pump.

The dip should be used toward evening or on cloudy days as the hot sun may blister the animal's skin if the oil has not evaporated.

The emulsion dip is probably more efficient in destroying the nits than the commercial dip. In either case the treatment should be repeated in a week or ten days to destroy any lice which may have hatched since the previous treatment.

During cool weather, sprinkling the hogs with crude oil is very effective. If this is used in summer, the hogs may blister if turned out in the sun.

After treating hogs for either worms or lice the yards should be cleaned of litter and sprinkled liberally with freshly slaked lime to prevent reinfestation of the herd. Lime kills many worm eggs and embryo worms in the infested grounds.

Hog Cholera.—Missouri Agricultural Extension Service Circular 17 recommends that: "If any pigs in the herd show symptoms of sickness,

such as loss of appetite, vomiting, or diarrhea, no matter if cholera is not near, confine them in a building where no infection carriers can reach them. These sick hogs should be handled as cholera sick until the cause of the disease can be definitely established. There are good reasons for not allowing these animals to run with healthy pigs. In the first place, if the disease should be cholera, these animals giving off the germs of the disease in their excretions and secretions, would supply abundant infection for the healthy pigs. In the second place, even if the disease does not prove to be cholera, the sick hogs should be given a quiet and comfortable place in which they will have a better chance to recover. Some pigs have a very low natural resistance, while others have a strong resistance to hog cholera. The pig that has a low resistance is usually the first to take hog cholera, and if it is promptly isolated, there is a possibility that the rest of the herd may remain healthy. If the sick

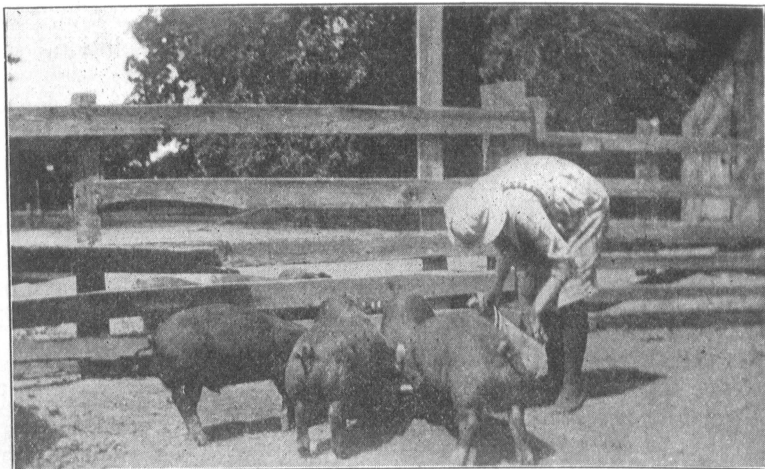


Fig. 9.—A healthy litter belonging to a Missouri Sow and Litter Club member.

pig continues to grow worse or if others become sick, it is advisable to employ the best trained veterinarian within reach to make an investigation of the disease.

Hog Tonic.—The health of the pig is more dependent upon proper feed, care and management than upon any hog tonics or stock food. If the pigs are healthy and are getting protein supplements as tankage, skimmilk, or alfalfa, about the only extra mineral feed necessary is salt.

If the feed given the pigs is made up entirely of grains, then calcium and phosphate may be needed and can be supplied as described in the

paragraph on minerals. Wood ashes or ground limestone furnish calcium and bone meal or acid phosphate will furnish phosphate.

A home made mixture which may be of some value in keeping the pigs healthy contains 4 parts charcoal, 3 parts glaubers salts, 3 parts copperas, 3 parts salt and 1 part sulphur.

If any serious question arises concerning the health of the club member's hogs, information may be obtained by writing direct to the Department of Veterinary Science, Missouri College of Agriculture, Columbia, Missouri.

The Pig Club Tour

It is recommended that the county extension agent and the local club leaders conduct the pig club tour in July or August. At that time of the year, the project work is far enough along to show results and farm people are not very busy.

Usually, one all-day automobile tour is conducted for all the pig clubs of a county. The pig club members, parents, livestock men and other interested persons of the communities represented should be invited to take part in the tour.

The program generally consists of making a visit to one or more farms on which good hogs are produced and to the home farms of as many of the club members as possible. The tour will be made more interesting, if each pig club member shows his livestock to the visitors and tells them about his project work when they arrive at his home farm to observe his livestock. When visited, it is suggested that each club member give at least the following facts regarding his project work:

1. State the exact age of pigs, when farrowed, etc.
2. Give exact rations being fed and amounts.
3. Be prepared to explain how much feed has been consumed per pig and cost of same.

A regular club meeting should be held at noon following a picnic lunch. Special training should be given the club members in judging hogs while on the club tour, which training should help to prepare them for taking part in the livestock judging contests in the county and at the State 4-H Club Round-up, which will be held at the Missouri College of Agriculture in early August.

Showing and Judging

PREPARING FOR SHOW

The club member must begin making preparation at least a month before the show if he hopes to win. The pig must be in the very best of health if it is to stand any chance. The fat barrow should carry all the covering that can be put on smoothly. This fat must be smooth and firm if he is to win. This calls for careful feeding and for plenty of exercise. Exercise is also necessary to keep the barrow upon his feet and pasterns.

The gilt or boar to be shown in the breeding classes should not carry so much fat as the barrow; only enough to make them look smooth. To win with the gilt or boar, the boy must feed for stretch and growthiness.



Fig. 10.—First prize Poland China litter in Club Section, Missouri State Fair, 1923.

Trimming the Toes.—Work on the pig's feet should be started a month before the show. If the pig is to stand up well on its pasterns, the toes must be kept trimmed back. Stand the pig on a level floor and, with a rasp and sharp knife, trim back the toes and sides of feet until the weight is even on the base of the foot when the leg is placed properly.

It may be necessary to give attention to the feet at least twice before showing, for if too much is taken off at once, the pig will be made lame. For this reason, the last trimming of the feet should be about ten days before the show. Unless the pig is very gentle, he will probably have to be put in a crate while his feet are being trimmed. By removing the lower board on either side, one can work conveniently through an ordinary shipping crate.

Washing.—At least one week before the show the pigs should be thoroughly washed with soap and water and brushed with a stiff brush. This will loosen up the scurf which another washing may remove. After washing the last time, dry the pig with a towel and bed him down with clean straw.

Oiling.—Practically all breeders who make a practice of showing hogs use oil on the hog's hair. A good oil to use is one composed of two-thirds raw linseed oil and one-third gasoline. This should be put on sparingly with a soft brush or cloth. The oil softens the skin and adds luster to the coat. Only enough oil should be used to brighten up the hair. Before showing, if the pig is rubbed over with a woolen cloth it will add to the shine the oil has given his coat.

Training the Pig.—Considerable time should be spent training the pig before the show. The boy should have a short cane and a light hurdle about 2 feet wide at bottom, 2 feet high, and 1 foot wide at the top. The boards should only be one-half inch thick so that the hurdle may be light. The pig must be absolutely gentle, but not a pet, to show well. The club member should work with the pig until he can easily take it any place around the barn lot and yard, and make it stop and stand where and when he wants it to stand. It takes a great deal of practice and patience for the boy to learn how to show as well as for him to teach the pig how to be shown.

Trimming Hair.—It is a good plan to clip off the long rough hair around the ears and any long, coarse hair on the face or jowls. The tail should also be clipped excepting the hair that makes the brush at the tip.

SHOWING THE PIG

When the time comes to show your pig, be ready to show. Be prompt about getting in the ring but always keep the pig under perfect control. Do not try to get the pig on top of the judge, but keep in front

of him 8 or 10 feet away. Keep your pig out of the corners, away from the other pigs a little, if possible. Keep the head of the pig down and the back held well up. Keep in a good humor, as any judge admires a good sport and dislikes a poor one. Never stop showing the pig until the ribbons are given out, as you do not know what the judge has in his mind.

JUDGING HOGS

Any boy who hopes to be a successful breeder or feeder of hogs must first know what a good hog looks like. If you learn to be a good judge of hogs while young it will help all through life.

The following is a description of what a good market hog of the lard type should look like.

The **General Appearance** of the lard-type hog fattened for the market embodies a long, deep, and reasonably wide conformation, together with great smoothness. The legs should be of medium length, so as to give a rather upstanding, but not leggy, appearance. He should be tall as measured from his back to the ground, rather upstanding as measured from his belly to the ground. yet deep from back to underline. The top line should be arched, showing an even curvature from shoulders to tail, insuring against weakness of back and loin. The hips should have about the same height as the tops of the shoulders, and the rump should round off rather gradually. The underline should be straight, trim, and level, insuring against paunchiness and against flabbiness in fleshing along the belly. The flanks should be well let down. The hog should be uniform in his width and uniform in his depth, showing no tendency to taper in width and to be heavy in shoulders and light in hams. He should be very smooth in both form and fleshing, and should show refinement of head, ear, coat, and skin. He should have bone of medium size, free from any roughness and coarseness and also free from over-refinement and weakness. His legs should be straight and he should be active and should show good style. The lard hog is more quiet in disposition than the bacon hog, but a sluggish, inactive hog is objectionable. Lard hogs should be fairly active. This makes them better grazers, insures exercise, and helps to develop heart and lung capacity and strength of feet and legs. Too frequently the fat, finished pig is short-winded and is weak in underpinning, so that it becomes a difficult matter and perhaps impossible to get him safely to market.

The **Head** is of medium size, medium length, broad between the eyes, and short of snout. A narrow head and finely pointed snout are indications of a poor feeder. The shape and length of head vary according to the breed, but in none of the lard breeds is much length or narrow-

ness desirable. The eyes should be as large, prominent, and clear as possible, a small sunken eye obscured by rolls of fat around the socket being objectionable. The carriage of the ear varies according to the breed, being erect in some and drooping or broken in others. In all breeds, however, a fine and medium-sized ear, neatly attached to the head, is desired. The jowl should be neat and trim.

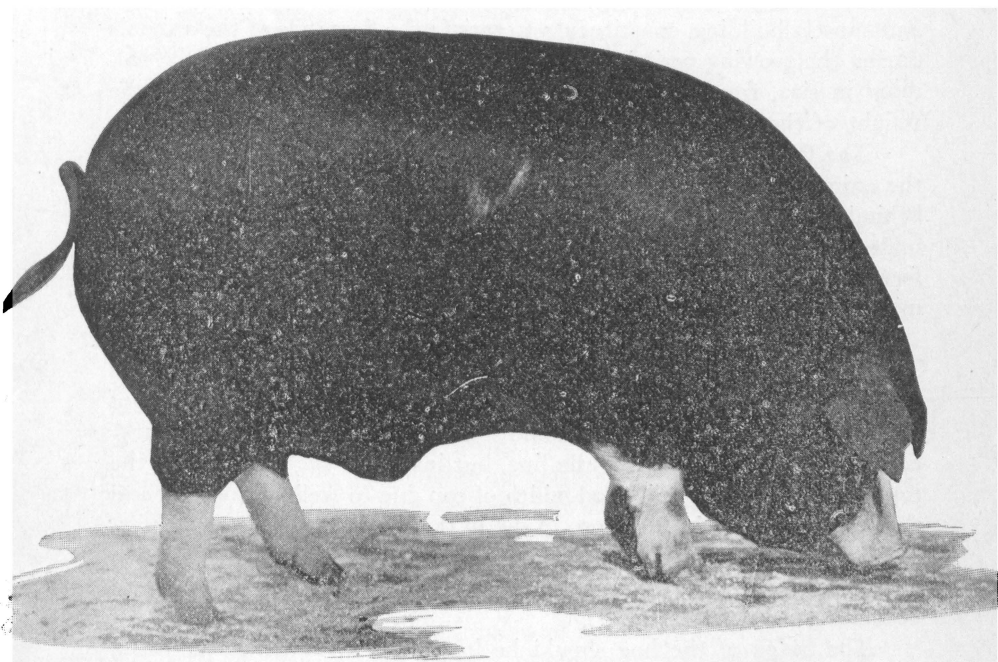


Fig. 11.—Grand champion barrow at International Livestock Show at Chicago, bred, fed and exhibited by the Missouri College of Agriculture.

The **Neck** should be of medium length, slightly arched, and medium broad on top. A neck that is narrow or peaked on top is not often associated with a body of the desired conformation, and it also denotes lack of condition.

The **Shoulders** are very frequently too open and prominent, so that as one looks down at the top of the hog the shoulders are found to be much the widest part of the animal. They should be well laid in, very smooth, and have no greater width than the rest of the body.

The **Front Legs** should be of medium length, this being a somewhat variable feature, depending on the breed, and they should also be straight. It is especially important that the pasterns shall be short, upright, and

very strong, and that the feet shall be strong also. These points should be particularly emphasized, for it is a fact that the weak, broken-down pasterns and weak, spreading toes are among the most common and most serious faults in hogs of the lard type. Weak legs may be due to a natural or inherited weakness, or to improper feeding during the growing period. If growing pigs are fed on corn exclusively, they are liable to develop weakness of the legs, because corn does not carry sufficient bone and muscle-building constituents to satisfy the demands of the animals during the growing period. The bone of the market hog should be medium in size, free from coarseness, and amply sufficient to carry the weight of the hog and to provide strength of feet, pasterns, and legs.

The **Chest** is an evidence of the constitutional vigor possessed by the animal. It should be deep and wide, and should be well filled out behind the shoulders and elbows, affording a large heart-girth. The underline should not cut up between the fore legs, but carry straight forward so as to give as much depth through the chest as through the middle of the body.

The **Back and Loin** of the lard hog are very important parts. They should be rather long and of good but not excessive width, and, as the animal is viewed from the side, they should be arched. The top of the hog should be thickly fleshed and smooth. There should be no marked rounding off from the middle line, but instead a slight arch over the top from side to side and good width of top due to well sprung ribs and thick but not excessive fleshing. A dip in the back, or sway-back conformation, greatly detracts from the appearance of the animal and may indicate weakness of muscling; hence the cuts from the back and loin may be lacking in lean meat.

The **Sides** of the hog should be long from shoulder to ham and should carry down straight and deep from back and loin to belly and flanks. Very short hogs raised and fed for market are open to objection because such a type does not grow rapidly. On the other hand, extreme length is often secured at the expense of constitution and feeding qualities. Extremes are to be avoided. When fattened for the market, the sides should be thickly and smoothly fleshed so that every point along the sides fills out to meet the same straight line from shoulder to ham. Wrinkles in the skin along the side are objectionable because they injure the smoothness of appearance which is so desirable, and if the wrinkles are very deep and are permanent, that is, do not disappear when the hog changes position, they are called "creases" and are highly undesirable.

The **Belly** should be straight, not paunchy, insuring a good dressing percentage when the hog is killed. The belly should be trim, not flabby, and should be wide rather than narrow or V-shaped.

The **Rump** should be long and as wide as the rest of the top, and it should carry out from the hips to end of body with a slight curve downward to coincide with the arch of the entire top from head to tail. Very often the rump will be found very steep or drooping, the hips being carried too high and the tail set too low. Accompanying this kind of a rump and to a certain extent causing it, is a faulty position of the hind legs, the feet being set too far under the body. This constitutes a weak conformation of the hindquarter, and gives the animal an ungainly appearance. The rump should not taper in width from hips to end of body, but be uniform in width throughout.

The **Hams** really include the rump as well as the thighs and twist. They should be large and well developed, being deep and of good width, with the thickness and fullness carried well down toward the hocks. They should be reasonably firm in flesh and should be neat in form.

The **Hind Legs** should be of medium length and should carry down straight and vertical from the hocks to the ground. The pasterns should be short, upright, and very strong, the feet well formed, and the toes strong. The bone of the market hog should be of medium size and free from coarseness.

The **Hair** should be straight rather than curly, and should be fine. A harsh, bristly coat is an evidence of coarseness. A curly coat is objectionable because the curly hair is usually coarser than straight hair, and curly-coated hogs do not shed their coats properly, which injures the appearance. A swirl or rose in the hair on the back of rump detracts from the appearance, and is objectionable for that reason. The hair should be abundant, straight, and fine, and should lie close to the skin. Such a coat affords the most protection and adds to the attractiveness of appearance.

The **Quality** of the lard-hog is determined by the refinement of the head, and bone, smoothness of finish, and freedom from wrinkles and creases. The hog with quality has a clean-cut, well-bred appearance that pleases not only the producer and hog fancier, but also the butcher, because such a hog yields a neat, tidy carcass that attracts buyers, and the cuts of meat show a refined texture that is not to be found in the cuts from a coarse, rough hog.

The proper **Finish** of a lard-hog is secured by a fairly high degree of fattening. When handled along the top, below the shoulders, and at the lower border of the hams, the fleshing should be firm instead of soft as is often the case, especially in some breeds. Some hogs become lumpy in their covering of fat, which is objectionable. When the fattening has proceeded far enough to round out the lines of the animal and give him a smooth, springy, mellow covering of flesh, he is in the right

condition to meet with most favor from the butcher, and, as a rule, this degree of finish is most profitable to the producer.

The **Temperament** of the lard-hog is quite different from that of the bacon hog, being less active and more inclined to quietness, lying down, and taking on of fat. Most producers believe that better results are secured if the hog is disposed by temperament to take considerable exercise, especially during the growing period; they are selecting more active hogs for breeding, and are managing their young stock in such a way as to induce them to take a large amount of exercise. This results in growthy pigs of robust constitution and lessens the danger of disease. Exercise also develops the muscles and strengthens the pasterns and legs. Notwithstanding this present-day tendency to select a more active hog than in the past, there must always be considerable difference between the lard type and bacon type in this respect, the former being more quiet, slower in movements, and having greater natural aptitude to fatten.

The **Weight** for age is an important consideration because it is a measure of the profit-making ability of the hog. Pigs weighing over 150 pounds, fattened for the market, should have at least one pound of weight for every day of their age. On this basis, a pig six months old should weigh not less than 180 pounds. It is not unreasonable to fix the standard weight for lard hogs six months old at 200 pounds; nine months, 300 pounds; twelve months, 400 pounds. Hogs are matured at about thirty months of age. Mature boars in good condition should weigh 800 pounds or over; sows, 600 pounds or over. The average weight of hogs received at the large markets at the present time is about 225 pounds. Hog growers are agreed that weights from 200 to 150 pounds for market hogs are usually most profitable.

Bearing this description in mind the club members will be able to use the score card intelligently.

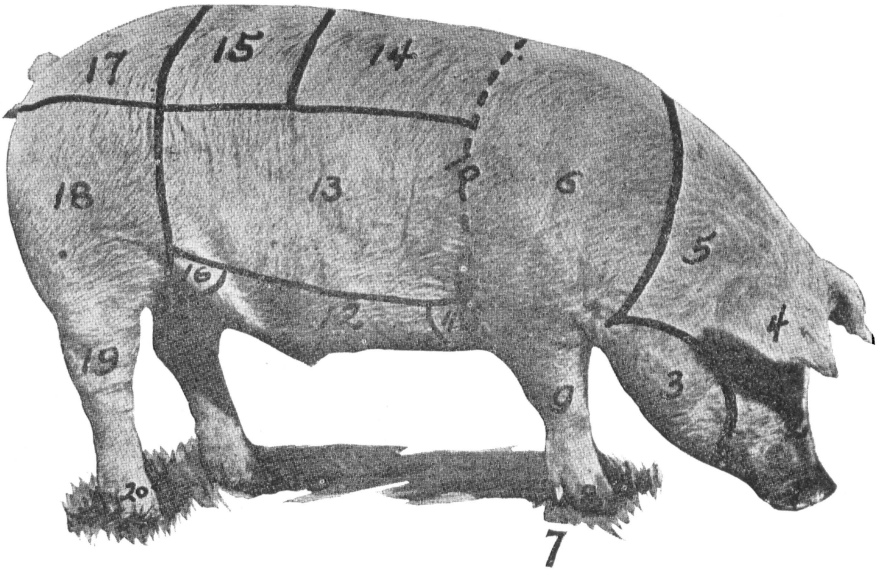
SCORE CARD FOR LARD HOGS

SCALE OF POINTS	Possible Score	Member's Score			
Age—estimated.....yrs., actual.....yrs.					
GENERAL APPEARANCE—26 Points.					
Weight—estimated.lbs., actual.....lbs. score according to age.....	6				
Form, arched back, straight underline; deep, broad, medium length, symmetrical, compact, standing squarely on legs.....	8				
Quality, bone of firm texture, fine skin, silky hair, clearly defined features and joints; mellow touch.....	6				
Condition, thick, even, covering of firm flesh, especially in regions of valuable cuts; indicating finish; light in offal.....	6				
HEAD AND NECK—8 Points.					
Snout, short, not coarse.....	1				
Face, short, broad, cheeks full.....	1				
Eyes, large, full, clear, bright, wide apart, not obscured by wrinkles.....	1				
Forehead, broad.....	1				
Ears, well carried, fine, medium size.....	1				
Jowl, full, firm, broad, neat.....	1				
Neck, thick, medium length, somewhat arched, neatly joined to shoulders.....	2				
FOREQUARTERS—10 Points.					
Shoulders, broad, deep, full, compact, covered with firm flesh.....	6				
Breast, wide, deep, breast bone advanced.....	2				
Legs, straight, strong, wide apart, pasterns short and strong, feet strong.....	2				
BODY—33 Points.					
Chest, deep, broad, girth large, foreflank full.....	4				
Back, broad, slightly arched, medium length, thickly, evenly and firmly fleshed.....	8				
Sides, deep, medium length, closely ribbed, thickly, evenly and firmly fleshed.....	8				
Loin, broad, strong, medium length, thickly, evenly and firmly fleshed.....	8				
Belly, straight, proportionate width, firmly fleshed.....	3				
Flanks, full, low.....	2				
HINDQUARTERS—23 Points.					
Hips, smoothly covered, proportionate width.....	3				
Rump, long, rounding slightly from loin to root of tail, width well carried back, thickly, evenly and firmly fleshed.....	8				
Hams, deep, wide, thickly, evenly and firmly fleshed.....	10				
Legs, straight, strong; pasterns short and strong, feet strong.....	2				
Total.....	100				

Disqualifications.....

Animal..... Date.....

Club Member..... Standing.....



- | | | | |
|----------|-----------------|----------------|----------------|
| 1. Snout | 6. Shoulder | 11. Fore Flank | 16. Hind Flank |
| 2. Face | 7. Dewclaw | 12. Belly | 17. Rump |
| 3. Jowl | 8. Foot | 13. Side | 18. Ham |
| 4. Ear | 9. Foreleg | 14. Back | 19. Hind Leg |
| 5. Neck | 10. Heart Girth | 15. Loin | 20. Pastern |

SUGGESTED PROCEDURE IN THE JUDGING OF LIVE STOCK

The good judge of livestock has learned the following:

1. To know and recognize essentials,
2. To observe details,
3. To properly evaluate what is seen.

Knowledge of the fundamentals of animal form and function is the basis for the first consideration. Ample practice with the score card is the surest method of teaching students to observe. In this connection, the problem of evaluation should receive further consideration. The use of these cards may be followed by practice in writing reasons for placing without their use as a guide.

Most persons who become proficient as livestock judges, use a definite scheme for examining animals. Such scheme may not be evident to the observer, and perhaps not realized by the person involved; but exists nevertheless. It involves not only the mechanics of examining animals but the mental processes used. No one scheme may be said to be best. Any satisfactory plan must be logical, convenient, and complete.

Students are inclined to spend too much time in handling animals or observing them at very close range. This tends to over-emphasize details. In examining an animal, a general view at a distance of 15 to 20 feet is worth while at the outset. It gives one an idea of proportion and general character. This may be followed by a front, side, and rear view of the animal, and by the necessary handling of the animal. In case of horses, if possible, the action then should be observed. All of these activities should be conducted with the idea of careful observation at all times of both details and general characteristics. If a class of animals is being studied, each should be observed by this manner in order. If students are unable to arrive at a decision after such procedure, close comparison of the two animals concerning which uncertainty exists may be made. If proper observation has been made, a decision may be reached and reasons for it kept clearly in mind.

In writing or stating why a class of animals has been placed in a given way, reasons should take the form of comparison and contrast of the animals, telling why the first excels the second, why the second excels the third and the third the fourth.

In placing animals, there are usually a few more important differences upon which decision is based. If possible, these differences should usually be mentioned in order of the weight that they have had in forming the opinion.

If in any class one animal is clearly the best or the poorest, the fact should be so stated. If there is a pronounced difference between two

animals, it should be so stated. Essential differences between animals or disqualifications of animals should be mentioned when first comparing two animals. Argument should be presented logically, convincingly, and with only sufficient length to cover the subject under discussion. It is worse than useless to draw out such statements.

SOME GENERAL SUGGESTIONS ON CONDUCTING JUDGING CONTESTS

After club members have learned to use the score card in judging individual animals, they are ready to judge by comparison. Two animals may be placed at first while learning. Usually, four animals constitute a judging class. Each animal is designated as 1-2-3-4, or by A-B-C-D.

In contests, club members and teams are judged on the combined results of both placings and reasons, on basis of 50 per cent of points for correct placings and 50 per cent of points for correct reasons. Oral reasons are given in contests, but it is easier to give written reasons while learning to judge. In giving reasons, compare the animal placed first with the one placed second, the one placed second with the one placed third, and the one placed third with the one placed fourth. Type, quality, form, condition and sex characteristics in breeding animals are the important points to consider in giving reasons. The most outstanding point should be given first consideration in the discussion. It is always best to tell just what was seen in judging the animals. A contest may be conducted in each club to give all the members a chance to compete. The three highest ranking individual judges and an alternate should be selected to represent the club as a team in the county judging contest. Team work may be developed by giving the members of the team an opportunity to practice judging together and to discuss their own placings and reasons with each other and with the leader or judging specialist.

After the judging work has been completed but before the results of the contest have been announced, the judge should exhibit the classes of animals as placed in the contest in the presence of the contestants and give reasons for the placings made. After thoroughly understanding the placings, club members will have a fact basis for showing good sportsmanship when the results are announced.

Demonstrations

In so far as possible, all club members should be instructed in the regular club meetings by the demonstration method. As a usual thing one or more members of each club can begin demonstrating useful phases of the work program before the club soon after the processes have been demonstrated to the club group by the club leader.

After two or three months of practical experience in handling real things, all mature club members should be able to give public team demonstrations. The scope of the team demonstration usually should be limited to the essential processes of some phase of the club work of the current year on one subject. A team of two or three of the best demonstrators, according to the number needed, should be selected from the membership of one club by individual tryouts in competition. All teams should have an opportunity to demonstrate before the local club group and the people of the home community, and the championship team should represent the local club at the county round-up.

SUGGESTED SUBJECTS FOR TEAM DEMONSTRATORS

1. Ear-marking pigs.
2. Hog sanitation.
3. How to make and use a hog oiler or rubbing post.
4. Shelter for swine.

Any approved practice may be demonstrated which lends itself to demonstration methods of presentation.

SUGGESTED OUTLINES OF CLUB DEMONSTRATIONS

HOG SANITATION

(For 4-H Sow and Litter Clubs)

Team.—Two members from one club designated in this outline as "A" and "B".

Reference.—Moving picture film, "Exit Ascaris". Project outline of the Extension Service in Animal Husbandry.

Equipment Needed.—Farrowing pen, scoop shovel, two brooms, box for old bedding, kettle with hot water, can of concentrated lye, three-gallon bucket, bushel basket full of finely chopped straw, brushes with stiff bristles or rags, three gallons of warm water with 5% solution of coal tar dip, sow and litter, a pig infested with worms and a healthy pig, hog crate on runners for sow and box for pigs of litter, enlarged

pictures of results of a demonstration showing a healthy litter and a worm infested litter and a chart showing the life history of the round worm.

Time.—Fifteen to thirty-five minutes.

Procedure

<i>A speaks and demonstrates</i>	<i>B assists</i>
<p>Leads in giving a club song or the pledge; gives a brief history of the club; introduces team-mate and self; and states what the team is going to demonstrate.</p>	<p>Joins in giving a club song or the pledge. Stands at attention while being introduced.</p>
<p>1. <i>Purpose of Hog Sanitation:</i></p>	<p>Get pigs ready for use in the demonstration.</p>
<p>a. To prevent round worms in hogs. b. To keep down filth diseases, such as bull nose and intestinal necros.</p>	<p>Assist "A" in exhibiting the pigs.</p>
<p>2. Exhibit a runty, wormy pig and a healthy pig and make comparisons. According to veterinarians, 90% of all losses, other than hog cholera, are due directly or indirectly to hog worms.</p>	<p>Assists with chart.</p>
<p>3. Exhibits and explains a chart showing the life history of the round worm.</p>	<p>Assists in cleaning out the farrowing pen and in scrubbing it.</p>
<p>4. Cleaning the farrowing pen. a. Time—three or four days before farrowing. b. Cleans out old bedding from the pen and saves it for fertilizer. c. Scrubs the farrowing pen with solution of 1 lb. of lye to 30 gallons of boiling water and explains that it is the only disinfectant that will kill the eggs of the round worm. Commercial disinfectants have not been found satisfactory in killing round worm eggs. d. Lets farrowing pen dry out.</p>	
<p>"My team-mate, (or John), will now explain and demonstrate how we clean the sow to remove filth, worm eggs, and lice, before farrowing," or "My team-mate, (or John), will continue the demonstration."</p>	

<p style="text-align: center;"><i>A assists</i></p> <p>Gets warm water, soap, and brushes, or rags, ready for the demonstration.</p> <p>Assists in cleaning up the sow.</p> <p>Places bushel basket of finely chopped straw in the farrowing pen.</p> <p>Assists in putting sow in pen. Quietly lets litter of pigs into the pen from the rear while B makes explanations.</p> <p>Helps to place the sow in crate, and the pigs in a box on top of crate, and transfers to clean pastures.</p>	<p style="text-align: center;"><i>B speaks and demonstrates</i></p> <ol style="list-style-type: none"> 5. Cleaning up the sow. <ol style="list-style-type: none"> a. Need for same. b. Time—3 to 5 days before farrowing date. c. Purpose—to remove filth, worm eggs, and lice. Explains how the filth harbors bacteria and worm eggs. d. Demonstrates cleaning up the sow, using hot water and soap, and explains the process. e. Explains that if lice are present that the sow should be scrubbed off with a 5% solution of a good tar dip, such as Cresol, etc. f. Explains why only one bushel basket of finely chopped straw should be put into the farrowing pen for bedding. g. Puts sow in the farrowing pen. 7. Explains why the sow and pigs should be kept off infested lots for 10 days to two weeks, and then removed to clean quarters so as not to become infested with worm eggs and bacteria. 8. Transfers the sow and litter to clean pastures and explains why, the litter being left on the pasture until about 4 months old. <p>“My team-mate, (or Richard), will now complete the demonstration.”</p>
<p style="text-align: center;"><i>A speaks</i></p> <ol style="list-style-type: none"> 9. Gives results of hog sanitation demonstrations, showing the value of round worm control. 10. Summarizes briefly— <ol style="list-style-type: none"> a. Cleaning up the farrowing pen, process and why. b. Cleaning up the sow, process and why. c. Transferring the sow and litter to clean pasture, and why. <p>Asks for questions. Thanks audience for attention.</p>	<p style="text-align: center;"><i>B assists</i></p> <p>Exhibits enlarged pictures showing results of round worm control. Collects equipment.</p> <p>Stands at attention.</p>

HOW TO MAKE AND USE A HOG OILER OR RUBBING POST

Team.—Two members from one club, designated as “A” and “B”.

References.—The Pig Club Circular. Missouri Agricultural Extension Circular No. 13. U. S. Farmers’ Bulletin No. 874.

Equipment Needed.—One post 4 x 4 inches with corners removed and with $\frac{1}{4}$ inch grooves of different lengths already cut down three sides of the post, a box or frame in which to set the post, 15 feet of burlap 8 inches wide to wrap about the post, a four-quart can for top of the post, a hammer, some 6-penny, big-headed nails, a concave wood chisel, and some oil.

Time.—Fifteen to thirty minutes.

<i>A speaks</i>	<i>B assists</i>
<p>A leads in giving a spirited club song or in repeating the 4-H Club pledge; gives a brief history of the club; introduces his team-mate and himself; and states what the team is going to demonstrate.</p> <p>1. <i>Why a Hog Oiler or Rubbing Post is Necessary.</i></p> <ol style="list-style-type: none"> (1). Effect of lice on swine. (2). Life history of a louse. (3). Treatment for lice. (4). Names essential steps in making a hog oiler. 	<p>B joins in giving the club song or pledge.</p> <p>Stands at attention.</p> <p>Gets material ready for making the hog oiler.</p>
<p style="text-align: center;"><i>A assists</i></p> <p>Holds post and hands tools and materials to B as needed.</p>	<p style="text-align: center;"><i>B speaks and demonstrates</i></p> <p>2. <i>Construction of the Hog Oiler or Rubbing Post.</i></p> <ol style="list-style-type: none"> (1). Cuts groove $\frac{1}{4}$ in. deep down one side of the post from the top. Explains. (2). Nails can to top of the post and punches holes in the bottom over the grooves. Explains. (3). Wraps the burlap around the post so as to cover the grooves. Explains. (4). Stands the post on end and pours oil into the can.
<p style="text-align: center;"><i>A speaks</i></p> <p>3. <i>How the Hog Uses the Oiler.</i></p> <p>Summarizes briefly.</p> <p>Asks for questions.</p> <p>Concludes by thanking the audience for its attention.</p>	<p style="text-align: center;"><i>B assists</i></p> <p>Stands at attention.</p> <p>Answers questions referred to him on his topics.</p> <p>Stands at attention.</p>

SCORE CARD FOR JUDGING DEMONSTRATION TEAMS

	Perfect Score	Actual Score
1. Subject Matter	30
(1) Importance of the subject matter presented and relation to fundamental problems of home or farm.		
(2) Accuracy of statements made in oral presentation and proper methods in doing the work.		
(3) Completeness with reference to the giving of all steps necessary to clear understanding of process.		
(4) Clearness and definiteness of statements made in simple language easily understood.		
(5) Replies to practical questions. Judges' questions only should be considered in team scores. Team should give authority for subject matter presented.		
2. Team Work	20
(1) Preparation, arrangement and use of materials. The team will be responsible for the arrangement and preparation of equipment and its use.		
(2) Organization of work, each member in so far as practical to be kept busy with a definite part so that the work and instructions given will proceed without delay, but each member of the team should be able to demonstrate the whole process.		
(3) Appearance and conduct of the team. Appearance and conduct includes the personal appearance of the members, and of the team as a whole. They should be business like, pleasant and so far as possible, a unit in action and appearance.		
(4) The team member not actually directing the demonstration should re-inforce the point at hand or at least should not detract from the theme of the demonstration.		
3. Skill	20
(1) Ease in procedure.		
(2) Workmanship and efficiency of manipulation.		
(3) Neatness and cleanliness in doing work.		
(4) Speed, system or dispatch.		
4. Results	15
(1) Effect upon the audience, and also upon materials used in the demonstration, as may be shown in the finished product.		
(2) All processes made clear.		
5. Practicability	15
(1) Value of principles given for the home and community.		
(2) Actual club practices shown.		
Total Score	100

