

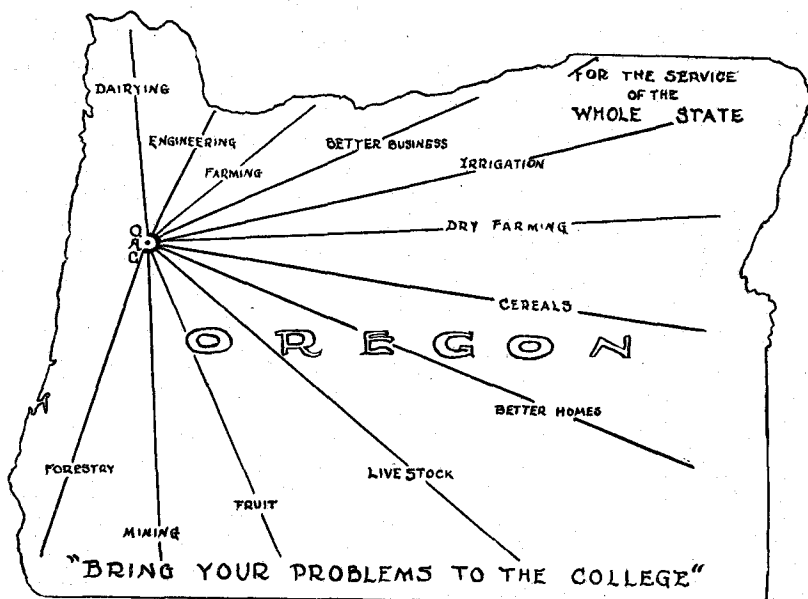
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# Oregon Agricultural College

## EXTENSION DIVISION

### INDUSTRIAL CONTESTS FOR OREGON BOYS AND GIRLS

1912



The bulletins of the Oregon Agricultural College are sent free to all residents of Oregon who request them.

## PREFATORY NOTE.

The Extension Division of the Oregon Agricultural College has been organized for the purpose of aiding in extending the advantages of the college to the people of the State. It is known that much of the information in the possession of the experts of the college and the experiment station would be of value to the people of the State who cannot come to the college for it if it could be carried to them. The dissemination of this information over a territory as vast as that of Oregon and in such form as to be suited to conditions as diversified as those prevailing in our State, is a task of great proportions and one not fully comprehended even by those who have given it most exhaustive study. For this reason it is impossible, at this time, to name the agencies which will be used ultimately in the prosecution of this work, or even to indicate the full scope of the final and complete organization. The agencies to be used for the present and the scope of the work as it is now understood are partially indicated by the outline which appears on the back page of this bulletin.

This bulletin is the first of a series to be published by the Extension Division for the purpose of disseminating practicable and valuable information. These publications will be simple, lucid explanations of scientific truths which may be used in making the farms and shops more productive and the homes and civic communities more attractive. They will be sent free to the people of the State.

We are indebted to the Oregon Bankers' Association, the State Superintendent of Public Instruction, and others, for liberal assistance and co-operation in the publication of this bulletin and the advancement of the work herein suggested. We trust this hearty co-operation will be continued and extended, for we find in it the most encouraging and helpful elements to be met with in carrying out the mission of the Agricultural College.

RALPH D. HETZEL,  
*Director of Extension.*

# INDUSTRIAL CONTESTS FOR OREGON BOYS AND GIRLS

1912

This bulletin is published as a part of the campaign recently initiated by the Oregon Bankers' Association and joined by the State Superintendent of Public Instruction, the Oregon Development League, the State Board of Agriculture, the Oregon Agricultural College, and others for the purpose of advancing industrial education, especially along agricultural lines, and improving rural conditions in Oregon. The main features of the plan herein suggested have been tested in several states and in a few counties in Oregon, and have been found practicable and valuable. By the practice of the same methods as described in this bulletin the products of several states have been increased in value by millions of dollars, the farms improved, the homes brightened, the schools bettered and the general welfare advanced. In short, the work has been instrumental in bringing about a social and economic revolution of great significance. It is in the hope that these experiences may be repeated on a larger scale in the State of Oregon that this matter is now brought to your attention.

We are placing the principal emphasis, at this time, upon the industrial contests, and this is done in the belief that they represent merely initial work in the great field of industrial education. We hope, in this manner, to stimulate the children and the parents of this commonwealth, to give greater thought and more attention to the care of the home and the production of necessaries. A South Carolina boy, fifteen years of age, has raised 232 bushels of corn on one acre. This illustrates what we hope to inspire by interesting our boys and girls in these competitions. Enthusiasm so kindled will result, ultimately, in effort inspired by the joy of achievement only, and this in turn will lead to intelligent methods, increased production, greater incomes and happier homes.

## TO THE MEN AND WOMEN.

We are attempting to enlist the interest of the boys and girls of this State in work that will be clean, wholesome, healthful and profitable. We want these boys and girls to learn how to do the things they will be called upon to do when they take up their work in the world, and we want to dignify the labors which make for the welfare of the home, the school, the community and the State. This great work will require the co-operation of the teachers, the parents, the business men, the professional men, the organizations, in fact of every influence that can be brought to bear. For these reasons we want you to join with us in attempting to bring about the fullest realization of the work suggested in this bulletin.

## TO THE TEACHERS.

Your hearty co-operation is necessary to the success of this great work. We want to enlist you as the lieutenant of the superintendent.

It will devolve upon you to inspire, encourage and aid the children. You will be rewarded well for your efforts, for, as the work progresses, problems of discipline will disappear, the school work will improve, the community will take added interest in your school, and its support will become more liberal.

It is impossible to tell you what to do for there is no *one* way. The success of the work in your school will depend largely upon your originality. The one thing to keep in mind is that *every boy and every girl should become efficient in the things they will have to do when they leave the school house*. They must be taught that intelligence, courage, and application will be rewarded as liberally in the homes and the industries as in other fields of human endeavor. Our task is to dignify the industries and elevate the homes.

We respectfully offer the following suggestions as to procedure:

- (1) Study this bulletin carefully and explain the work to the children;
- (2) decide upon the subjects your pupils can compete in, selecting as many as possible of those for which prizes are offered at the State Fair;
- (3) notify the bankers and the commercial clubs, or any other interested persons in your community, that you are prepared and ask them to furnish the prizes;
- (4) hold a contest or exhibition at your school;
- (5) send the exhibits to the county contest and to the State Fair;
- (6) if you are unable to help the children during the vacation period, see that a proper leader is chosen to take charge of the work during this time.

The State Superintendent, the extension staff of the Agricultural College, the county superintendents and others will be ready to offer you encouragement and assistance.

## TO THE BOYS AND GIRLS.

The boys and girls of Oregon have started a State-wide contest to determine *who is best in doing the things that count*. This is going to be a harder fought contest and one that will attract more attention than any that has ever been carried on by the young people of this State. This great contest will enlist the best efforts of thousands of the brightest and strongest boys and girls in this commonwealth. It is a contest that is far more important and will be far more interesting than any series of athletic contests ever held because it is a fight to determine who can do the best work in the things that the world is demanding. The greatest problem of today before the American people is to improve the homes and make the shops and the farms more productive. Boys and girls who excel in doing these things are the ones who will be considered the successful boys and girls of today, and who will be the successful men and women of tomorrow.

The people of the State are so much interested in these contests that they are offering splendid prizes to the boys and girls who can prove that they are the leaders in this great field. You will be surprised to find how much interest the people of the State will take in *you* if you prove that you are among the best of those who are working for better homes, better farms, and more and better products for Oregon. We will be watching your efforts and will expect to see your exhibit at your county fair and also at the State Fair. We want you to help us make these contests the greatest things that have ever been done in the State. We want you to help us prove that you have brains, courage and strength. Will you do it?

## CITY BOYS AND GIRLS.

Boys and girls living in the city should be as keenly interested in this work as are the country boys and girls. They will be able to

enter as large a proportion of these contests as will the others. Thousands of back yards and vacant lots, now useless and unsightly, can be converted into neat, well-kept poultry yards, or beautiful and profitable gardens. Woodwork, cooking and sewing, can be done to as good advantage in the city homes as on the farm. We would like to see you prove that you are as able to do things that count as are the boys and girls of the rural districts. We will be looking for *your* exhibits at the county and State fairs.

## THE HISTORY OF THE MOVEMENT.

For several years past school officials and citizens, who have given thought to the matter of education and industrial advancement, have had in mind a general campaign for the purpose of interesting the people of the State, especially the children, in agricultural and industrial education and the improveemnt of agricultural methods. It has been recognized by those who have given the matter careful thought that our public schools must give more attention to the work of the men and women who are carrying on our industries and caring for our homes. Much has already been done in the way of introducing this feature into the regular school courses, but there is a recognized need of something that will vitalize it and enlist a broader interest in it. This factor is believed to be the industrial contests described in this bulletin.

The school authorities in several counties have already made great progress in this line of work and have had excellent results. Other organizations, such as the Y. M. C. A., have also carried forward this work with gratifying returns. The time now seems ripe for making this State-wide. Believing this to be true, the Bankers' Association appointed a committee and instructed this committee to take some action tending to the advancement of education, especially agricultural education, in this State. In response to an invitation from this committee the State Superintendent of Public Instruction, the Oregon Agricultural College, the State Fair Association and the Oregon Development League and others have joined in this movement to assist in spreading the doctrine of industrial improvement throughout the State.

## THE OBJECT.

The object of this work is two-fold: First, by offering substantial prizes for the local, county, and state contests, to stimulate the boys and girls to put forth their best efforts in the production of useful and valuable matter; second, to instruct these boys and girls in the best methods of doing this work, and thus spread the gospel of efficiency in production.

## THE PLAN.

The plan is to hold a series of contests beginning at the school and ending at the State Fair. Each teacher should encourage her pupils to enter exhibits of their work. The nature of the work is suggested by the subjects of the contests to be held at the State Fair, and any others may be added by the teacher. The best exhibits at the school fair should be entered at the county fair, or at the school industrial fair if the county does not hold a fair or does not provide for this feature of the work. The best exhibits at the county exhibition should then be taken to the State Fair.

While it is hoped that this order of procedure may be followed, it is not necessary to the success of the work. If the county fairs are not held prior to the State Fair, or if, for any other reason, individual

exhibitors or the exhibitors of any school have not had an opportunity to enter their work at the county contest, they should send it to the State Fair for exhibition. While it is desirable that the best exhibits from the local and county contests are sent to the State Fair, no exhibitor will be excluded. In other words, it is not necessary to win a prize at the local contest in order to have the exhibit accepted at the State Fair.

The preparations for the local contest should be commenced early. The teachers should get the children interested and well started in the work of preparing their exhibits. They should then get in touch with the commercial clubs, the county fair officials, the business men and any other organizations or individuals who could be of assistance in promoting the contests. The commercial clubs and the bankers have been informed as to the nature of the work and will be ready to meet the teachers and the parents more than half way in carrying out the plan. There will be no difficulty in securing the hearty support of the entire community if the full significance of the work is explained.

Before school closes in the spring the boys and girls, who are preparing to enter the various contests should be organized, and the teacher, or some man or woman of the community who is interested in the work, should be appointed as leader or advisor to take charge of the work during the summer months. It is very important to select for this position the right person. The boys and girls need some one to keep up their enthusiasm and to help at every turn. It would be well to arrange for frequent meetings during the vacation period.

The major portion of the arrangements for the local contest must be carried by the local people. In this work they will be assisted, as far as possible, by the State Superintendent of Public Instruction, the Oregon Agricultural College, and other agencies interested in the movement. To this end members of the Agricultural College extension staff have been placed in the field under the immediate direction of Superintendent L. R. Alderman. They will attempt to visit every county in the State and offer such assistance as is in their power in advancing this work.

### RULES GOVERNING EXHIBITS.

1. The State Fair will be held September 2 to 7.
2. There is nothing to prevent a child from entering as many competitions as he or she desires.
3. Each child must do all the work in preparing his or her exhibit. In gardening the ground may be plowed by someone else if desired.
4. Every boy and girl in Oregon under 21 years of age is eligible to enter these contests. The contests will be divided into two classes. Class A will include all over twelve years of age; Class B will include all twelve years of age and under. The prizes will be offered on the basis of these qualifications. There must be a statement accompanying each exhibit signed by the parents or guardian of each child to the effect that the exhibit entered has been prepared by the exhibitor.
5. Entries in this department must be made upon blanks issued from the office of the secretary.
6. One entry blank should be filled in for each pupil, and this blank must be mailed to the Secretary of the State Board of Agriculture, Salem, so that it will reach him not later than August 25, 1912.
7. All work indicated, except otherwise stated, must be the work of the pupil.
8. No pupil shall make more than one entry for each prize.
9. In case there is no competition, the premium will be awarded at the discretion of the judge.

10. All exhibits being shipped should be billed to Oregon State Fair, Fair Grounds, Oregon, and the name of shipper must be marked plainly on article.

11. All exhibits must be shipped so as to reach the Fair Grounds not later than August 31, 1912.

12. Express and freight charges must be prepaid. See page 14 under "The State Fair Exhibit."

13. Entry blanks will be sent upon application to secretary State Board of Agriculture, Salem, Oregon.

There will be no fee charged at the State Fair for entering exhibits in these contests. The fair officials will also give to each boy or girl who enters an exhibit a ticket to the State Fair good for one day.

#### PRIZE LIST FOR STATE FAIR.

The following first prizes have been solicited and the list prepared by the State Superintendent of Public Instruction:

The second, third, fourth, and fifth prizes in each case, except where otherwise specified, will be \$6, \$5, \$4, and \$3, respectively.

#### GRAND SPECIAL FOR BEST TRIO OF CHICKENS IN ALL CLASSES. ALL AGES.

Shetland pony, given by Ben W. Olcott, Secretary of State, Salem.  
One prize only.

#### SPECIAL.

Certificate for 100 Faverolle eggs, given by Eugene Prescott, Salem, breeder of Salmon Faverolles, winner of blue ribbons. Given for the best trio of Salmon Faverolles.

One prize only.

#### 1. FIELD CORN (10 Ears).

##### CLASS A.

First prize—Scotch Collie pup given by C. D. Nairn, proprietor of the Oregon Scotch Collie Kennels, Shadeland Farms, Amity.

##### CLASS B.

First prize—Fox Hound pup given by P. A. Smith, owner of royally bred coyote catcher fox hounds, Yamhill.

#### 2. POP CORN (10 Ears).

##### CLASS A.

First prize—Thoroughbred Jersey calf given by W. O. Morrow, owner of La Creole herd A. J. C. C. Jerseys, Independence.

##### CLASS B.

First prize—Thoroughbred Jersey calf given by Robt. L. Burkhart, owner of Maple Lawn Place, "Home of A. J. C. C. Jerseys," Albany.

#### 3. SWEET CORN (10 Ears).

##### CLASS A.

First Prize—Southdown ewe given by J. G. S. Hubbard, breeder of pure bred sheep, Corvallis.

##### CLASS B.

First prize—Southdown ewe given by Frank Brown, breeder of short-horn cattle and pure bred sheep, Carlton.

4. WATERMELONS (One).

CLASS A.

First prize—Cotswold ewe given by D. J. Kirby, State and A.-Y.-P. winner against world's best, McMinnville.

CLASS B.

First prize—Cotswold sheep given by H. G. Keyt, owner of world's champion, Baron Duke, Perrydale.

5. MUSKMELONS (Two).

CLASS A.

First prize—Lincoln ewe given by Senator C. L. Hawley & Son, winners at many State fairs, McCoy.

CLASS B.

First prize—Shropshire ram given by Thompson Bros., breeders of pure bred sheep, Macleay.

6. SQUASH (One).

CLASS A.

First prize—Poland China pig given by Herbert Willard, breeder pure bred swine, Dayton.

CLASS B.

First prize—Poland China sow given by Wm. I. Huggins, breeder of guaranteed stock, Junction City.

7. PUMPKIN (One).

CLASS A.

First prize—Poland China pig given by Hon. T. W. Brunk, Poland China specialist, Salem.

CLASS B.

First prize—Poland China pig given by Dr. Holt C. Wilson, owner of prize stock, Possom Trot Farm, LaFayette.

8. POTATOES (10).

CLASS A.

First prize—Hereford calf given by Geo. Chandler, breeder of thoroughbred Hereford and Shorthorn cattle, Baker City.

CLASS B.

First prize—Holstein bull calf given by Thomas Carmichael, breeder of Holstein cattle, Shropshire sheep, and Poland China hogs, Gaston.

9. CABBAGE (One).

CLASS A.

First prize—Pure bred goat given by C. H. Cannon, owner of fine goats, Turner.

CLASS B.

First prize—Angora given by Northwest Angora Association, Portland.



10. ONIONS (1 Gallon).

CLASS A.

First prize—Duroc Jersey pig given by Browndale Farms where fine hogs are reared, North Portland.

CLASS B.

First prize—Duroc Jersey pig given by G. M. Harvey, owner of Rosebud herd Duroc Jerseys, Salem.

11. CELERY (2 Bunches).

CLASS A.

First prize—Poland China pig given by The Mission Rose Dairy & Stock Farm, owned by L. R. Alderman, Dayton.

CLASS B.

First prize—Poland China sow given by Thomas Carmichael, breeder of thoroughbred cattle, sheep, and pigs, Gaston.

12. GRAIN SELECTIONS (Best Collection Sheaf Grain).

CLASS A.

First prize—Berkshire sow given by J. H. Schaap, Cherry Lawn Farm, Jersey cattle and Berkshire swine, Gervais.

CLASS B.

First prize—Berkshire pig given by Geo. L. Dorsey, breeder of pure bred hogs, Dayton.

SPECIAL—KAPLINGER POTATO RACE No. 1.

ALL AGES.

First prize—Six Light Brahma chickens given by Wm. F. Kaplinger, Salem.

Second prize—Certificate for setting of Barred Plymouth Rock eggs given by Hart & Daniels, holders of the world's record for egg production for three years, Albany.

Third prize—\$3.00.

Fourth prize—\$2.00.

SPECIAL—KAPLINGER POTATO RACE No. 2.

ALL AGES.

First prize—Trio of pure bred Barred Plymouth Rocks given by B. F. Keeney, breeder of prize-winning fowls, Eugene.

Second prize—Certificate for setting of White Wyandottes given by J. A. Griffin, winner in Oregon and Washington fairs, Eugene.

Third prize—\$3.00.

Fourth prize—\$2.00.

Mr. Kaplinger provided 100 children with a seed potato each in the first race, and all other children applying before February 17 he entered in the second race, again furnishing potatoes. To the children bringing in the biggest and best display from the one potato the prizes will be awarded.

13. BIRD HOUSE.

CLASS A.

First prize—Berkshire pig given by L. L. Paget, breeder of pure bred Berkshires, Gaston.

CLASS B.

First prize—Berkshire pig given by W. K. Newell, owner of pure bred Berkshire swine, Gaston.

14. PIECE OF FURNITURE.

CLASS A.

First prize—Imported turning saw given by Preer Cutlery & Tool Company, Portland.

CLASS B.

First Prize—Chest of Stiletto tools given by Pacific Hardware and Steel Co., Portland.

15. LABOR SAVING DEVICE.

CLASS A.

First Prize—Indian pony of Pendleton roundup stock from Umatilla Reservation.

CLASS B.

First Prize—Airedale puppy given by A. G. Raab, owner of famous Airedale hunting dogs, North Bend.

16. BREAD (One Loaf).

CLASS A.

First Prize—No. 2 Jewel Fireless Stove given by Honeyman Hardware Company, dealers in stoves, sporting goods, builders' hardware, Portland.

CLASS B.

First Prize—Aluminum cooking set given by Meier & Frank Company, dealers in art goods, dress goods, kitchen goods, Portland.

17. CANNED FRUIT AND VEGETABLES (One Jar Each).

CLASS A.

First Prize—Writing desk given by I. Gervurtz & Son, complete house furnishers and outfitters, Portland.

CLASS B.

First Prize—Scale, brass scoop, capacity of 240 pounds given by Fairbanks, Morse & Co., dealers in scales, railroad supplies, hardware, Portland.

18. JELLY (Two Glasses).

CLASS A.

First Prize—Richardson's Linen Dinner Set (table cloth and 12 napkins) given by Olds, Wortman & King, dealers men's and women's furnishings, china, silver, notions, Portland.

CLASS B.

First Prize—Writing desk given by Ira F. Powers, dealer in carpets, stoves, furniture, Portland.

19. HAND MADE APRON.

CLASS A.

First Prize—Writing desk given by J. G. Mack & Company, dealers in furniture, carpets, draperies, Portland.

CLASS B.

First Prize—Writing desk given by Heywood Bros. & Wakefield Co., wholesale furniture dealers, Portland.

20. MACHINE MADE APRON.

CLASS A.

First Prize—Set of solid handle table knives and forks given by Honeyman Hardware Company, cutlery, housefurnishing, Portland.

CLASS B.

First Prize—Book order given by J. K. Gill Company, booksellers, stationers, Portland.

21. DRESS.

CLASS A.

First Prize—Willamette sewing machine given by Meier & Frank Company, the oldest merchants in Portland.

CLASS B.

First Prize—Sewing table and complete sewing basket given by Failing-McCalman Company, dealers in hardware, iron and steel, tin-ware and metals, Portland.

22. DARNING (Three Pieces).

CLASS A.

First Prize—Trio purebred Anconas given by Ira G. Nelson, breeder of pure bred Anconas noted for laying qualities, McMinnville.

CLASS B.

First Prize—Trio purebred Anconas given by R. Woolery, winner at State Fair, Marion County and Portland fairs, Salem.

23. SWEET PEAS.

CLASS A.

First Prize—Cut glass, silver mounted fern bowl given by Lipman, Wolfe & Co., dealers in drygoods, art, silverware, Portland.

CLASS B.

First Prize—Pen (five) White Leghorns given by H. S. Carter, breeder of pure blooded White Leghorns, Salem.

24. ASTERS.

CLASS A.

First Prize—Trio R. C. White Leghorns given by Mrs. L. G. Pell, owner of "Captain Snow" winner at A.-Y.-P., Pendleton.

CLASS B.

First Prize—Trio S. C. White Leghorns given by Sherrell Fleming, breeder of high scoring poultry, Salem.

25. PIGS (One).

CLASS A.

First Prize—Poland China boar given by Thomas Carmichael, breeder of Poland China, fine Holstein cattle, Shropshire sheep, Gaston.

CLASS B.

First Prize—Hampshire pig given by J. M. Fruitts, owner of the best prize winning swine, Joseph.

GRAND SPECIAL FOR SOW AND LITTER.

ALL AGES.

First Prize—Shetland pony given by the Union Meat Company, Portland.

ALL AGES.

Second Prize—Poland China boar given by P. E. Thomason, Maple Lawn Stock Farm, Turner, Eubanks & Turner, managers, breeders of prize winning stock.

POULTRY.

26. DUCKS (Trio).

CLASS A.

First Prize—Trio Indian Runner ducks, given by J. H. Engeman, breeder of S. C. Brown Leghorns and I. R. ducks, Silverton.

CLASS B.

First Prize—Trio Indian Runner ducks, given by Chas. A. Muths, breeder of Barred Rocks, and Indian Runner ducks, Salem.

27. CHICKENS (Trio).

AMERICAN CLASS (including Plymouth Rocks, Dominiques, Wyandottes and Rhode Island Reds).

CLASS A.

First Prize—Trio Buff Plymouth Rocks, given by B. F. Williams, Milton, winner at Milton, Walla Walla, Spokane, Yakima, Lewiston, and A.-Y.-P. Fairs.

Second Prize—Trio Rhode Island Reds, given by L. B. Fyre, Ontario, breeder of Lester Tompkins strain of pure breeds.

Third Prize—Certificate for 30 eggs given by B. F. Williams, originator of the "Maples" bred-to-lay Buff Rock.

CLASS B.

First Prize—Trio Silver Laced Wyandottes, given by Mrs. Frank Lines, Albany, breeder of pure-blooded fowls.

Second Prize—Trio Rhode Island Reds, given by B. I. Ferguson, Salem, breeder of pure strains.

Third Prize—Certificate for 30 eggs given by B. F. Williams, owner of the "Maples", Milton.

28. MEDITERRANEAN (including Leghorns, Black Spanish, Minorcas, Anconas and Andalusians).

CLASS A.

First Prize—One hundred-and-twenty-egg incubator, given by E. J. McClanahan, the incubator man, Eugene.

Second Prize—Trio Brown Leghorns, given by A. G. Propst, winner at State, Eugene and Scio fairs, Albany.

Third Prize—Blue Andalusian cockerel, given by D. M. Calbreath, Monmouth, Blue Andalusian specialist.

CLASS B.

First Prize—Fireless brooder, given by E. J. McClanahan, Eugene.

Second Prize—Trio S. C. White Leghorns, given by C. O. Windle, Lents, breeder of White Orpingtons and Young strain White Leghorns.

Third Prize—Ancona cockerel, given by A. G. Propst, Albany, breeder of Brown Leghorns and purebred Anconas.

29. ENGLISH (including Orpingtons and Dorkings); ASIATIC (including Brahmans, Cochins, Langshans); HAMBURGS.

CLASS A.

First Prize—Trio Buff Orpingtons, given by W. I. Goin, Scappoose, breeder of S. C. Buff Orpingtons.

Second Prize—Trio purebred selected fowls given by B. M. Smith, Champeog, breeder best strains.

Third Prize—"Soils, How to Handle and Improve Them," given by the Pacific Homestead, Salem.

CLASS B.

First Prize—Trio Buff Orpingtons, given by Joseph Hall, Newberg, president of Yamhill Poultry Ass'n, winning breeder.

Second Prize—Trio Buff Leghorns, given by H. F. Ziegler, The Dalles, in front rank at every show.

Third Prize—Pair purebred Wyandottes, given by H. E. Bell, breeder of finest strains, Salem.

30. MISCELLANEOUS (including Games, Bantams, Polish, etc.)

CLASS A.

First Prize—Library of five poultry books including "The Standard of Perfection," given by the Northwest Poultry Journal, Salem.

Second Prize—Trio Games, given by B. M. Smith, Aurora, breeder of exclusive and best strains.

Third Prize—Certificate for 30 eggs, Partridge and Barred Rocks, given by Dr. M. E. DeGuire, Silverton.

#### CLASS B.

First Prize—Trio S. C. Buff Leghorns, given by Bayard H. Moul, McMinnville, breeder of fowls with egg record of 219.

Second Prize—Trio White Faced Black Spanish, given by E. H. Hufford, St. Johns, winner at Sate, Forest Grove, Eugene, and Portland fairs.

Third Prize—Certificate for 30 eggs, Columbian and Silver Penciled Plymouth Rocks, from pens containing winners of from two to ten ribbons each, given by Dr. M. E. DeGuire, Silverton.

### THE STATE FAIR EXHIBIT.

Every boy and girl is urged to send an exhibit to the State Fair. The cost of caring for these exhibits, while at the fair, will be met by the State Board of Agriculture. The express and freight charges must be prepaid. The Southern Pacific Company, however, will refund the money upon the certificate of the Secretary of the State Board of Agriculture when the goods are delivered for return shipment. Exhibitors shipping over this line should refer to Freight Tariff No. 244G. Other railroads and the express companies may make some concessions in the matter of transporting the exhibits. Announcements relative to this matter will be made later. Instructions as to the methods of billing the material will also be sent to you in the near future.

#### STATE TO USE BEST EXHIBITS.

The State officials are anxious to get an exhibit of the products of Oregon that will show the people of the country what Oregon can do. They are especially anxious to show the people what Oregon boys and girls can do. For these reasons, they have requested that the prize winning exhibits, except the chickens, hogs, and perishable matter, be turned over to them to be used for exhibition purposes. The exhibits, however, will not be taken without the consent of the owner.

### RULES AND REGULATIONS.

The following rules and regulations, prepared by the College experts, have been assembled and printed in this bulletin for the direction and assistance of the teachers and the children entering the contests.

We do not pretend to offer a full course of instruction in this bulletin. We wish, only, to call attention to a few of the things which should receive careful thought from the children who are preparing the various exhibits. In many instances the information here given may be supplemented by reference to bulletins named in the following pages.

Prizes have not been offered by the State Fair Association for contests in raising or making some of the following described products, but the information is given in the belief that it may be of value in connection with the local contests. *Read these rules and regulations.*

## GARDEN PRODUCTS.

BY PROFESSOR A. G. BOUQUET.

### CELERY.

Celery, of good clean appearance and fine flavor, is always in strong demand and there is hardly a more profitable vegetable to be grown in Oregon. Celery requires a rich soil and plenty of moisture during the summer months, and it will practically be impossible to grow the crop without having an abundance of water.

*Seed Sowing.*—Celery is almost always grown by transplanting, the seed being sown in a very fine seed bed and afterwards being transplanted to the field. The seed is very small and should be barely covered. It should be sown some time during March and the seedlings as they grow should have protection either by glass or cloth during the months of March and April.

*First Transplanting.*—About five weeks from seed sowing the little seedlings will be large enough to be transplanted three inches apart each way. They must receive good care and watering when they are in this state and should not be checked in any way by the cold weather.

*Second Transplanting.*—When the plants are about six inches high, which will be in June if the seed is sown in March, they should be set in the garden six inches apart in the row and the rows  $2\frac{1}{2}$  feet apart. The plants must be well watered before they are taken up and again after they are set in the field. They should be planted level as for a strawberry plant and not in a trench which incorrect method is sometimes used.

*Cultivation and Watering.*—The soil must be carefully cultivated all the summer and water applied to the plants whenever necessary by running a stream between the rows. No dirt should be thrown up to the plants, but when they are about 12 to 14 inches high the blanching should begin.

*Blanching.*—In order to get the celery plants a pure white or golden yellow the light must be excluded from them for a period of about  $2\frac{1}{2}$  to 3 weeks. Twelve-inch boards should be placed up alongside of the rows one on each side held together by stakes driven on the outside or cleats on the top. If they are left in this manner for about three weeks they will be properly blanched at the end of that period.

*Varieties.*—The Golden Self Blanching is the most common variety grown and before it is taken out of the boards it should be a clear golden yellow. The White Plume is a white variety and should be a good clear white at the end of the blanching.

*Preparation for Exhibition.*—Following the blanching, the celery should be dug and the poor outside stalks trimmed off, the bunches then washed and afterwards tied together in bundles of either one-half dozen or one dozen.

*Important things to be considered.*—One or two important things to be remembered are: First, the plants must be kept growing steadily when they are young, or else they will run to seed later on; second, the soil must be kept stirred just as soon after watering as it is in good condition; third, all the available well rotted manure should be applied to the ground in the spring for the fertilization of the crop.

### CABBAGE.

Oregon, as a state, is splendidly adapted to the growing of the finest cabbage. This is largely due to the cool moist climatic conditions that are found, especially in the western part of the State.

*Soils.*—Cabbage can be grown on a wide range of soils, the best of which are the bottom lands, swale lands, or well drained clay loams. A

sandy loam is most suitable for early cabbage and a heavier soil for the late crop.

*Early Cabbage.*—The seed should be sown the last of February in a hot bed of 12 or 14 inches of manure and the plants afterwards transplanted to the field as indicated below.

*First Transplanting.*—This should be done when the little seedlings are putting out their first true leaf, being placed 2½ inches apart, and protected by glass or cloth during the cold weather.

*Setting in the Field.*—When the plants are about six inches high, they should be transplanted into the garden, usually about the second week in April being the proper time. Rows should be 30 inches apart and plants 16 to 18 inches in the row.

*Late Cabbage.*—If cabbage is to be grown for late market or exhibition, it should be maturing some time in September or October.

*The Seed Bed and Seed Sowing.*—A fine seed bed should be prepared in the open ground and the seed sown either broad-cast very thinly or in rows three inches or so apart, the seed being covered one-quarter of an inch. The ground should be kept well watered and stirred so as to break the soil crust.

*Transplanting.*—For late cabbage there will be but one transplanting and if the seed has been sown the first to the middle of May the plants will be ready for the garden the latter part of June or the beginning of July. They should be well watered before they are removed and placed 24 inches apart with rows three feet apart.

*Watering and Cultivating.*—The plants should receive a good watering after they are set and the soil should be carefully and regularly cultivated during the dry months. The amount of water to be given to the plants will depend largely on the soil conditions.

*Fertilizing.*—Previous to setting the plants the cabbage soil should be well enriched with rotten manure, plowed or spaded under to a good depth. There is no better fertilizer for cabbage than well rotted cow manure.

*Insect Pests.*—If green flies or aphids bother the plants, they may be killed by being sprayed with a mixture of one part black leaf, which is a tobacco mixture and forty parts water. The aphids should receive a dose of this before they become too numerous and begin to do lots of harm. If the green cabbage worm eats the leaves, a coating of arsenate of lead should be given uniformly all over the plants, in the proportion of one-eighth of a pound of arsenate of lead to three gallons of water and a little resin should be added to the water to make the arsenate stick to the leaves.

*Harvesting.*—The cabbage should be solid if it is to be put on the exhibition table. The size should not be extreme and the plants exhibited should be as near the proper type of the variety as possible. All poor leaves and rotten leaves should be broken from the head.

*Varieties.*—For late varieties there are no better cabbage than the Dutch Ballhead, Autumn King, or the Late Flat Dutch. The Savoy cabbages are very good for winter, being hardy and easily grown.

## ONIONS.

Onions in Oregon are grown to the greatest advantage on the beaverdam or muck or peat soils, but there are many fine onions produced on rich sandy loams and bottom lands.

*General Requirements.*—Onion soil must be not only very rich, but it must also be exceedingly fine so that the young seedlings may grow vigorously without any hindrance in the way of clods and weeds. The onion soil should always have an abundance of moisture and where water is available it should be applied during the summer.



*Methods of Growing Onions.*—There are three general ways; the first by sets planted early in the spring, second, by growing the seedlings and transplanting them to the garden, third, by sowing the seed directly in the garden and thinning the seedlings to a required distance.

*The Seed Bed.*—The seed bed must be very fine, smooth and even and, if possible, should be hand raked so as to have it free from clods and coarse matter.

*Seed Sowing.*—The seed should go in the ground about the middle of March to the middle of April, or as early in the spring as the soil is in nice mellow condition. Rows should be 14 inches apart and if there is a seed sower, such as the Planet Jr. or Iron Age, it should be used.

*Weeding and Thinning.*—Immediately after the seedlings are large enough to work around, weeding must begin and kept up continually so that the ground is always clean. If there is an excess of plants at various places in the garden, these can be thinned out and transplanted into those places where there are vacancies. The seedlings should be about three or four inches apart in the row.

*Fertilization.*—As above stated it is hardly possible to get onion soil too rich, and early in the spring the soil should be heavily coated with well rotted manure plowed or spaded in quite deeply.

*Watering.*—Where water is available it should be applied during the hot summer months, letting the water run between the rows and soaking the soil to a depth of six to eight inches at least.

*Harvesting.*—During the last part of August or first part of September the leaves will begin to turn brown and fall over and the bulbs will begin to "come out of the ground." It is then time for them to be pulled and put in a windrow so that the tops cover the onions which are now to be cured. They are left 12 or 14 days if the weather is dry and warm. At the end of this time they must be topped and stored for fall and winter use at a temperature of 33 to 35 degrees.

*Varieties.*—The Yellow Globe Danvers is the most widely grown yellow variety, the Australian Brown of the brown varieties, and the Silver Skin of the white varieties.

#### SQUASH.

The cultivation of winter squash is very easily understood and performed. The squash is a very tender plant and is easily injured by frost. It requires a long growing season, usually from May to September.

*Soil.*—Any rich warm soil will grow good squash. A sandy loam is very suitable but a well drained soil which contains plenty of moisture during the summer should mature a good crop.

*Time of Planting.*—This operation will not be performed until the soil is well warmed usually about the first or second week in May, or possibly, a little later if the soil is well supplied with moisture.

*Distance of Planting.*—This will vary from 8 x 8 to 10 x 10 feet, depending upon the amount of room available.

*Manuring.*—A fork full of well rotted manure to each hill will greatly help the crop to make a vigorous growth. This should be well turned under and mixed with the soil.

*Seed Sowing.*—Plant five or six seeds evenly distributed in each hill and cover one to one and a half inches deep.

*Thinning.*—When the plants have about two or three pairs of leaves, the less vigorous ones should be pulled out and a stand of three left in each hill.

*Cultivation.*—In order to keep down weeds and furnish plenty of moisture during the summer, there must be regular cultivation every week or ten days, together with some hand hoeing in which some loose soil will be drawn up around the plants.

*Harvesting.*—Winter squash should be ready to be taken from the field about the middle to the latter part of September, or any time

following up to frost, Squashes are easily hurt in harvesting being cut or bruised in handling. Let the squashes lie in the field for a few days after being separated from the vine so that they may dry out to some extent. In separating the squashes from the vines there should be left about one inch of stem.

*Storing.*—The squash should be in the storage house before there is any danger of a killing frost, and in order that they may be kept for a later market or exhibition purposes, they should be stored at a temperature of 42 to 50 degrees in dry air with proper ventilation. A cool dry cellar or any barn or building which will be frost proof will make a suitable storage house and the squash should be put on racks or shelves.

*Varieties.*—The Hubbard, Delicious, Boston Marrow and Golden Hubbard, are amongst the most popular of the winter squashes.

*Selection of Specimens.*—Particular attention should be paid to the selection of squash for exhibition. These specimens should be uniform in size, shape and color all true to the type represented. Medium sized specimens with typical characteristics of the variety are far superior to monstrous ones which are lacking the finer points.

#### MUSKMELONS.

To grow melons with success there must be certain conditions conducive to the development of fine flavor and proper size.

*Soils.*—The warm sandy loams which are found in the proximity of the rivers of the State are good melon soils. Any good soil containing quite a large percentage of sand when it is well enriched with a good coating of well rotted manure will produce good melons. Warm nights are also a great factor in increasing the fineness of the flavor.

*Propagation.*—There are two methods of growing the crop; first, by sowing the seed direct in the garden, and secondly, by sowing the seed in a mild hot-bed and later transplanting the plants to the open field. By the latter method there is a gain of about four to six weeks in the maturity of the melons.

*Seed Sowing in the Field.*—When the ground is well warmed in May the soil should be marked off four by four feet or six by six and at the intersection of the marks a hole should be dug about 12 inches deep and filled with a mixture of well rotted manure and good loam. The seed should then be sown at the rate of from six to eight to the hill and covered one inch deep.

*Growing by Transplanting.*—About the last of March or the first of April a mild hot-bed should be made up and a few seeds of the varieties desired sown in some strawberry boxes in which some soil containing a mixture of sand, well rotted manure and loam has been previously placed. All but two plants should be discarded in each box and during the second week of May these can be carefully transferred to the garden at the distances referred to above.

*Watering.*—Melon plants need an abundance of moisture in the soil for their best development, so that were water is available it should be run down on each side of the rows of plants.

*Cultivation.*—The ground should be constantly stirred during the summer time to hold the moisture and keep the soil in a mellow condition.

*Harvesting.*—Melons do not as a rule remain on the vines very long in a good condition and must, therefore, be picked as soon as ripe. They should be uniform in size, color and netting when placed on the market or exhibition table. The color of the melons under the netting will readily indicate the ripeness of the melon.

*Varieties.*—The Burrell Gem and the Rocky Ford among the small melons and the Montreal Market and the Hackensack among the larger types are the ones most widely grown.

## SWEET CORN.

This delicate and palatable vegetable is grown, very largely, for green marketing and for canning and, as such, is one of the most important vegetables grown. Sweet corn, to be of the best quality and size, must grow under warm conditions of climate and soil and in most parts of Oregon it is necessary to grow the early varieties in order to get early maturity.

*Seed Sowing.*—This should not be done before the ground is well warmed in the spring—the first or second week in May being average dates of planting. A good stand of plants is important and seeding should be made freely. The soil should be very carefully prepared early in the spring and leveled off as evenly as possible. If the young seedlings are to make rapid growth it is essential that the soil be in fine physical condition.

*Distances of Planting.*—The rows should be 36 inches apart both for hills and drills. The distance between the former may be 20 to 24 inches according to the number of plants which are left in each hill, usually three or four. If the plants are to be grown in drills they should stand from six to ten inches apart, giving ample room for the development of each plant.

*Thinning.*—When seedlings get to be three or four inches high the less vigorous ones in the hill should be taken out so as to give ample room for the development of those left. It is best to leave the seedlings distributed in the hills as uniformly as possible.

*Cultivation.*—Careful stirring of the ground must be kept up continuously to break up the soil crust and to maintain moisture. Especially is this necessary after irrigation, if this is practiced. A horse cultivator, or a small Planet Jr. or Iron Age hand cultivator is useful for cultivating between the rows followed by hand hoeing around the plants in the hills.

*Varieties.*—Rotten manure may be used to very good advantage to the extent of eight tons per acre. It should be plowed under in the spring and thoroughly harrowed so as to be well incorporated with the soil. One pint of wood ashes or one-half pound of sulphate potash may be used for every ten feet before planting if this is to be done in drills. Or a similar handful can be placed in each drill.

*Suckering.*—It is generally regarded necessary to remove suckers which grow around each plant in the hill. These should be broken off before they attain any size.

*Marketing.*—This will have to be carefully done in order to have the kernels plump and not hard. They should be uniform in size and in degree of ripeness.

*Varieties.*—Amongst the earliest are the Golden Bantam, Crosby, Early Minneapolis and White Cory. If it is desired to have successional harvestings of this crop it will be necessary to make plantings every week or ten days up to the last part of May or the first week in June.

## WATERMELONS.

The watermelon is a very important vegetable in the southern part of the United States and is there grown to excellent advantage. It can, also, be grown with very fair quality in many parts of Oregon. It thrives best where there is no danger of frosts late in the spring and where conditions are conducive to a good steady growth during the summer. Watermelons are usually more sensitive to cold than muskmelons.

*Cultural Directions.*—These are not very dissimilar to those for growing muskmelons to which the reader should refer. Warm sandy soil is very important for growth of the plants and the early ripening of the

fruit. The watermelon hills should be placed 8 x 8 in the garden and seeding should be kept up as for the muskmelon, and the fertilization will be similar to that already indicated for the later crop.

*Time of Marketing.*—This is a very important detail in growing melons and only by experience can one learn at what state of maturity a melon should be marketed. Regarding this matter, it would be well to heed the advice of the old negro mammy who told her grandson when he was stealing a melon to "Be shore when yo' thumps 'em dey allus sound plunk." When the melon is green it will have a sharp, metallic sound and when mature this sound is distinctly muffled and somewhat hollow. When dead ripe the sound will be similar to that when the palm of the hand is snapped with the finger.

*Varieties.*—Monte Cristo, Kolb Gen, and Cole's Early, are amongst the best to be grown in the State.

## AGRONOMIC SUBJECTS.

BY PROFESSOR H. D. SCUDDER.

### FIELD CORN.

*Object.*—To compare improved varieties with the best local varieties for yield, quality, maturity, habits of growth, etc. Corn is grown for two purposes in Oregon—one for green feed or silage, which is called forage corn, and the other for the ripened grain. These two qualities cannot be combined in one variety, so the best varieties for each purpose should be determined.

*Method.*—The rows may be of any length and 3½ feet apart. Rows one and two should be the College forage corn; rows three and four, the best local variety of forage corn; rows five and six, the College grain corn; rows seven and eight, the best local variety of grain maturing corn. The hills should be planted 3½ feet apart in the row, six kernels being planted in each hill in the forage varieties and four kernels in each hill of the grain varieties. The ground should be manured with well-rotted manure and spaded or plowed early in the spring and cultivated or hoed to keep down the weeds until planting time, about April 25th, when the soil is warm and mellow, the kernels being placed about two inches in depth. Thereafter, throughout the summer, the ground should be cultivated or hoed to keep down the weeds and maintain a mulch for the conservation of moisture. Seed of the two college varieties sufficient to plant rows two rods long will be furnished by the Oregon Agricultural College for 20 cents to cover postage and wrapping, or larger quantities at 15 cents per quart.

*Results.*—About the first of October, when the kernels are beginning to dent, the forage corn should be cut and weighed, each row separately, while the plant is still green. The ears of the grain varieties should be husked out when ripe and before the heavy rains start, and the ears from each row weighed separately. The best ten ears of corn from each row of the grain varieties should be carefully selected and retained, their quality being judged on the basis of the score card to be furnished. A neat record should be made of the preparation of the ground, date of planting, number of cultivations or waterings and weights of the forage corns and the number and weight of the ears of the grain corn of each variety.

*Reference*—Farmer's Bulletin Nos. 409, 414, 415 and 428.

### POTATOES.

*Object.*—To compare two standard varieties of late potatoes against each other or against a third variety of local fame and to develop that variety which proves best in yield and quality, habits of growth, etc., through hill selection of seed.

*Method.*—The rows may be of any length and three feet apart with the hills 18 inches apart in the row. Rows number one and two should be the American Wonder, rows number three and four the best local variety, rows number five and six selected Burbanks. The ground should be dressed with well-rotted manure and plowed or spaded deeply in March and frequently cultivated or hoed thereafter until seeding time, about the 15th of April. The best seed obtainable of each variety should be secured of a reputable seedsman. The potatoes should be cut to two good eyes, medium-sized potatoes being selected and two pieces planted to the hill about five inches deep. Several harrowings or hoeings should be given before the potatoes are up and five or six cultivations afterwards.

*Results.*—Dig when the vines begin to dry in the latter part of September or early October, before the fall rains if possible. Leave the potatoes from each hill together on the ground and when the two rows of each variety are all dug study the product carefully and reserve for seed all the potatoes from the six hills which have produced the largest number of medium-sized smooth, clean, well-ripened potatoes. Reserve all of the potatoes from the very best hill in each variety separately for exhibit. Get the total weight of the potatoes dug from the two rows. Dig, make selections and weigh in the same manner the other varieties. Keep a neat record of the preparation of the ground, date of planting, number of cultivations or waterings, total weight produced by each variety and notes on the difference in number and quality of the potatoes in the selected hills as compared with the average hills.

*Reference.*—Farmers' Bulletin No. 225.

#### ALFALFA.

*Object.*—To determine the possibility of and gain experience in the growing of this splendid crop.

*Method.*—Four double rows three feet apart and of any length desired should be grown. Only the choicest seed of the common alfalfa grown on dry land in some of the northwestern states should be used. Such seed may be secured through the Oregon Agricultural College. The ground should have a deep and naturally well-drained soil, fairly fertile and clean of weeds. This should be plowed or spaded early in the fall, left rough over winter, re-plowed shallowly or spaded early in the spring and then thoroughly and frequently cultivated or hoed until the first of May, every effort being made to kill the weeds and keep the soil thoroughly pulverized and moist. If the ground is not very fertile, a light dressing of well-rotted manure should be applied and spaded under in the spring. About the 15th of March one peck of water-slaked lime should be scattered and hoed in on each square rod of ground. The seed should be sown thinly in double rows, the two rows in each pair being about four inches apart and each double row three feet from the next one. It should be kept well hoed thereafter.

*Results.*—Cut the alfalfa when the very first blossoms appear and weigh at once while green, then feed to chickens or other live stock. Cut not closer than three inches from the ground, keep up the cultivation and cut again when the same stage is reached. Cut no further after the first of September and the next spring cultivate or hoe the rows carefully, early, and keep it up through the summer as before. Keep a record of the preparation of the ground, dates of planting, number of cultivations or waterings, dates of cutting and weights for each. Reserve shock of alfalfa from each cutting. This shock should be six inches through when tied and of the average height of the growth in all the rows at each cutting.

*Reference.*—Circular Number 6, Oregon Agricultural College.

*Reference.*—Farmers' Bulletin No. 339.

#### POP CORN.

*Object.*—To compare the yield, quality, maturity, habits of growth, etc., of two good standard varieties.

*Method.*—Rows  $3\frac{1}{2}$  feet apart and any length. Rows 1 and 2 should be of the Rice type, either the White Rice type or Snowball varieties. and rows 3 and 4 of the yellow Pearl type, preferably the Queen Golden. Drop the kernels about six or eight inches apart in the row about the 10th of May. A well-drained, fertile soil should be selected. The same preparation and after treatment should be given as recommended for field corn. The best seed obtainable should be secured of a reputable seedman.

*Results.*—When the ears are thoroughly ripened in October, they should be gathered and the best 10 ears from each row reserved for exhibit purposes, the total weight of the corn produced by each variety being kept. After the grain has been thoroughly dried out in storage the popping quality of the two varieties may be determined. Record should be kept as for field corn.

*Reference.*—Farmers' Bulletin No. 202.

#### KALE.

*Object.*—To determine yield and value for green feed.

*Method.*—The rows may be of any length,  $3\frac{1}{2}$  feet apart, and the plants three feet apart in the rows. A well-drained piece of ground should be deeply spaded in the fall and heavily dressed with well-rotted manure in the spring and spaded again and cultivated or hoed. Seed may be obtained of the Oregon Agricultural College at 10 cents per packet, sufficient to plant four rows two rods long. In March the seed should be sowed thinly in a row on one side of the piece. The rest of the ground should be well cultivated and in June when the plants are eight to twelve inches high they should be transplanted and set out in four rows as specified, thoroughly cultivated thereafter until the rains.

*Results.*—Starting the first of December or earlier if desired, the plants should be cut off at the ground as needed each day and fed green to chickens or other live stock. The weights should be kept of the total yield and individual weights of the five largest plants cut. Two or three of the choicest plants, judged on the basis of quality as well as size, should be allowed to stand through the winter and go to seed the next summer and the seed threshed out and retained.

*Reference.*—Circular No. 5, Oregon Agricultural College.

#### BARLEY.

*Object.*—To compare two improved varieties of feeding barley as to yield, quality, etc., with the best local variety.

*Method.*—The varieties should be planted in double rows, six inches between the rows in each pair and three feet between each pair of rows. Double rows numbers 1 and 2 should be College Oderbrucker, rows number 3 and 4 the best local variety, rows number 5 and 6 College Wisconsin. A well-drained fertile piece of ground should be chosen and prepared as for corn. The seed should be sowed thinly in the row about the 15th of April. It should be thoroughly cultivated or hoed thereafter. Seed of the two college varieties sufficient to plant four rows two rods long will be furnished by the Oregon Agricultural College for 20 cents to cover postage and wrapping.

*Results.*—Cut the barley when it is ripe, retain a sheaf six inches through from each variety, for exhibit. This sheaf should be representative of the average growth of the variety. The rest should be threshed out and the weight of the grain of each variety obtained and the seed kept for the next planting. A record should be kept of the

preparation of the ground, date of planting, number of cultivations and yields obtained.

*Reference.*—Farmers' Bulletin No. 443.

## COOKING CONTEST.

BY PROFESSOR AVA B. MILAM.

### 1. WHITE BREAD.

Bread constitutes the largest part of the diet of the average person. And it well deserves its title of "the staff of life." It is to the interest of every housewife to provide her family with the most nutritious and palatable loaf. And it should be the desire of every girl to learn the art of good bread-making.

There are several factors which influence the quality of bread; namely, flour, yeast, mixing, and temperature. Good flour is one which has the proper amount of gluten, which is the source of its elastic properties and which makes the loaf capable of rising. The rising of the loaf is caused by the action of the yeast. Therefore, a temperature should be maintained which would be conducive to the growth of these yeast plants. This temperature is about the temperature of the body, 75 degrees F. If the bread be subjected to a higher temperature the yeast plant may be killed. A low temperature hinders their development and a heavy loaf results.

Any girl wishing to enter the contest should study the Farmers' Bulletin on Bread and Bread-Making. The following score card should be studied by the contestant and bread should be made with these points in mind:

#### SCORE CARD FOR BREAD.

1. Flavor	-	-	-	-	-	-	-	-	35
2. Lightness	-	-	-	-	-	-	-	-	15
3. Grain and Texture	-	-	-	-	-	-	-	-	20
4. Color	-	-	-	-	-	-	-	-	15
5. Shape and Size	-	-	-	-	-	-	-	-	15
Total	-	-	-	-	-	-	-	-	100

Suggestive pamphlet and book for study—Farmers' Bulletin No. 389 (free), U. S. Department of Agriculture, Washington, D. C. Fannie Merrit Farmer's, Boston Cooking School Book. Pages 46-67. Price \$1.50. Published by Little, Brown & Co., Boston, Mass.

### 2. CAKE.

Cake is a modified form of bread. Formerly cakes were baked for social gatherings, joyful occasions and feasts. Although they are not restricted to such occasions today their addition to menu still bears a similar significance. From the simplest forms of the early times to the most elaborate of the present day, cakes signalize evolution and culture. Most civilized nations possess cakes which are peculiar to them.

Every girl should feel a certain pride when she has so gained control over materials that she may call her finished product a "good cake." The making of cakes requires more care and judgment than any other branch of cookery.

There are a number of factors which are significant in making cakes. First, quality and amount; second, mixing; third, baking.

The form of the sugar has a marked effect on the cake produced. It is most desirable to have sugar for cake baking in a form which can be most easily and thoroughly mixed, so long as it is kept in the

solid state. Powdered sugar affords the most desirable form. Good cakes, however, may be obtained from the use of fine granulated sugar, while this form of sugar in a coarse state will give a cake of coarse grain. Good cakes may be obtained by bread flour, still better by reducing its gluten content. The best cakes, however, are obtained by the use of pastry flour which contains a lower per cent of gluten. Cakes with as good a quality may be obtained with water as with whole or condensed milk.

The use of eggs is quite essential in cake making. They not only serve as partial leavening agents but they bear a decided influence on the flavor, texture, grain and food value of cakes.

In ordinary sized recipe one-half cup butter seems to give a cake of the best quality. Too much fat has the tendency to cause the cake to fall. Snowdrift, cottolene and oleomargarine when fresh, may be substituted for butter in cakes without detection, provided the cakes are not eaten when warm. Less of these fats should be used when substituted for butter, since they contain practically 100 per cent fat, while butter contains 85 per cent. An additional amount of salt should also be added when this substitution is made. By the substitution of these fats the cost of cakes is reduced perceptibly.

The ingredients used in cake making should be thoroughly mixed. Fat used may be melted as well as creamed, with as good results.

Cakes should be baked at a uniform temperature in an oven moderately heated.

#### SCORE CARD FOR CAKE.

1. Flavor	- - - - -	35
2. Lightness	- - - - -	20
3. Grain and Texture	- - - - -	20
4. Baking	- - - - -	15
5. Appearance	- - - - -	10
Total	- - - - -	100

### 3. CANNING AND PRESERVING.

*Canned Fruits and Vegetables.*—Fruits, because of their low nutritive value, are not often estimated at their real worth. Fruit has great dietetic value and should be used generously and wisely, both fresh and cooked. Nowhere is there greater need of a generous supply of fruit than on the farm, where the diet is often restricted in variety because of the distance from markets. Many of the fruits and vegetables are perishable and cannot be kept in a fresh state during an extended period of time. But the wise housewife stores up fruits and vegetables by canning or some other method of preserving, which will enable her to tide over that period when certain fresh fruits and vegetables are out of season.

#### THE PRESERVATION OF FOODS BY CANNING, PRESERVING, ETC.

The most essential things in these processes are sterilization of the food and all the utensils and the sealing of the sterilized food to exclude any forms of life, namely, yeasts, molds, and bacteria.

To sterilize a substance or thing is to destroy all life and sources of life, in and about it. This is done by heat.

Since air and water as well as food contain bacteria, yeasts and molds, all utensils used in the process of preserving foods are liable to be contaminated by these organisms. For this reason all the appliances as well as the food must be sterilized. Stew pans, spoons, strainers, etc., should be placed on the stove in boiling water and boiled 10 to 15 minutes. The jars should not be taken from the boiling water until they are to be filled with the boiling food.



Work should be done in well-swept and dusted rooms, and the clothes of the workers and towels used should be clean. The food sterilized should be perfectly sound.

In canning fruits it should be remembered that the product is more satisfactory if heated gradually and then cooked the given time. Fruits and vegetables when canned properly should retain their attractive color and lose very little of their flavor.

Upon entering this contest, students will find of great aid the study of the (free) Farmers' Bulletin No. 203 on Canned Fruit, Preserves and Jellies. No. 359 on Canning Vegetables in the Home. U. S. Department of Agriculture, Washington, D. C.

#### 4. JELLIES.

Every housewife enters into the processes of jelly-making with a certain degree of uncertainty as to her finished product. The rule that works perfectly one time fails another time.

In all fruits when ripe or nearly so, there is found a substance called pectin, which is somewhat similar in its properties to starch. It is because of this substance that we are able to make jelly. When equal quantities of sugar and fruit juice are combined and the mixture is heated to the boiling point for a short time, pectin in the fruit gelatinizes the mass. If this fruit juice and sugar are cooked too long, the gelatinizing power of this substance is lost. In addition to pectin there is acid which is an essential constituent. This explains why at times one is unable to make jelly from certain fruit juices.

In some cases the addition of lemon juice may cause the product to jell.

In addition to these two essentials sugar is found to be a desirable accessory from the standpoint of flavor and economy. The larger portion of sugar used, the greater the amount of the finished product, but the flavor of the fruit is less distinctive.

It may be universally said that the average housewife uses too large a proportion of sugar in jelly. A good jelly is one of good color, is firm and yet not tough, when cut with a knife will preserve its angles, will quiver when shaken, and contains a distinctive flavor of the fruit juice.

Great aid may be obtained by the study of the Farmers' Bulletin No. 203 referred to under the topic of Canning of Fruits and Vegetables.

#### SEWING CONTEST.

BY PROFESSOR HELEN B. BROOKS.

##### STOCKING DARN.

*Material.*—A stocking; darning cotton of same quality as that in the stocking; long slender darning needle.

*Preparation of Stocking.*—Free all the extended loops from broken threads and clear the hole from partially worn sections.

*Shape of Darn.*—In order that a darn may hold well it must begin beyond the edge of the hole. To avoid the formation of a ridge and causing the strain to come along the same row of loops, the darn should be kept in a diamond shape.

*Method.*—The work is done on the wrong side of the stocking; begin one-half inch beyond the edge at the right of the hole; the stitch taken beyond the edge of the hole should not show through. A loop is left at every turning so that when the stocking is laundered the darn will not draw. There is a line of running stitches for every row of loops in the stocking, at the edge of the hole the thread is drawn through

the loop that no further raveling is possible. This first set of threads constitute the warp; they should be close together across the hole. The woof threads run at right angles to these; at the top of the darn they are begun one-half inch beyond the edge of the hole, further if necessary; across the hole they are woven in and out among the warp threads, and extend beyond as far as the first set, thus preserving the diamond shape though not making it double all the way.

*Points for Judging.*—Smoothness of finished darn, and the length and regularity of stitches.

#### WOOLEN DARN.

*Material.*—A four-inch square of cashmere, henrietta, serge, or a suiting, ravelings of same and a fine needle. A straight tear should be made lengthwise the material in the upper left-hand corner, three-cornered, or hedge tear, in the lower right-hand corner.

*Method.*—Either the warp or woof threads or both are broken in a tear. The object of this darn, therefore, is to replace the broken threads and reproduce the original weave.

The work is done on the wrong side as far as possible. The distance beyond the tear depends upon the material and the strain it must withstand. Whatever threads are broken should be replaced as closely as is needed to hold material together and to hide the frayed edges. Fine running stitches are made back and forth over the tear leaving a loop at each turning. At the edge of the tear the stitches alternate in holding the edges down over one edge and under the opposite, etc. The stitches should be well hidden in the material.

In darning the three-cornered tear begin at the ends and work to the corner. This produces both sets of threads at the corner where both were broken, and here they should be woven in and out.

*Points for Judging.*—Smoothness, all stitches as well hidden as possible.

#### DAMASK PATCH.

*Material.*—A four-inch square of soft damask, a raveling of same, and a fine needle.

*Method.*—Cut an inch-square hole in the center of the square of damask. If it is cut exactly on the thread this piece cut out may be used for the patch. The patch must be exactly the size of the hole and should match in pattern. It is held in place by a catstitch taken in the patch and in the edge of the damask. The patch is fastened in by darning. A fine running stitch, taken the same as in darning a tear in woollen cloth. The work is done on the wrong side. It extends one-fourth inch or more beyond the edge but in crossing the edge bring one thread over the edge on one side and under the edge of the other alternately. There should be a small loop left at each turning but they should end as irregularly as possible that all the strain will not be along one line. The corners will be made secure by crossing the warp and woof darning at these points. When complete the catstitch is removed.

*Points for Judging.*—Smoothness; should show as little as possible; strength.

#### HAND-MADE APRON.

*Material.*—Plain, flowered or cross-barred dimity or lawn, linen or flaxon, three-fourths to one yard. Thread number 90 or 100. A narrow lace flounce one-fourth of distance around apron. Allow twice the width of lace for corners. Lace also at end of string.

*Making.*—Cut any shape desired, keeping good proportion. The edge is finished by rolling on lace. Roll the raw edge to the wrong side

between the thumb and first finger of the left hand, lay the rolled edge of the apron parallel to it, insert the needle under the roll letting the needle come through at the very edge of the roll, just opposite edge of lace that when stitch is drawn up it will not show on right side. The stitches must be taken closer than in hemming; the size of the roll should be only large enough to hide the raw edges. The lace should be held a trifle.

*Band.*—The band may be two inches longer than the width of top of apron. Place the band so the seam comes to the right side. There should be no gathers. The apron may be sewed to the band by using the back stitch or stitching stitch. Lay folds in the string so that it equals one-half the width of the band. Stitch the strings to the back half of the band. Now crease edge of band and hem down with a very fine stitch.

*Strings.*—From one and one-half inches to three inches when finished with a one-eighth inch hem. The string is twice the width of the finished band.

*Points for Judging.*—For all garments: Suitability of materials chosen for purpose, general effect, design and execution.

## DOMESTIC SCIENCE APRON.

### MACHINE WORK.

*Material.*—Lawn, white muslin, cambric or linen. There should be three lengths of a 30-inch material.

*Making Skirt.*—The finished apron should be the length of the dress. Allow six and one-fourth inches for hem and one-fourth at top for seam. Cut two lengths after taking the back length measure. Divide one down the center. These are the two side gores. Crease the other down the center then crease again, this dividing the width into fourths. This length is to be the center gore. It is desired to make it only one-half as wide at the top as at the bottom, therefore crease from the lower corner to the outer crease at the top. Then cut on this crease. Use French seams in joining the gores, one-half inch hem at the sides. Cut the skirt down in the center front the difference between front and back lengths. Gather, using a double number 50 thread. Begin in the center of the front gore, one-fourth inch from the top and the second gathering thread one-fourth inch below the first.

*Belt.*—Two strips the length of the waist measure and one inch for lap and one-half inch for seams, three inches wide. Stitch the gathered skirt of the apron to one of the belt strips so that the seam comes up on the right side.

*Bib.*—The width would vary from five to seven inches. The depth is two-thirds of the waist length. Two and one-half inch hem at the top. Gather at bottom.

*Straps.*—Two strips five and one-half inches wide. The length, from the top of belt in front crossing in center back to the bottom of belt in the back three inches to the side of the center.

Stitch the straps to the side of the bib so that the seam comes to the right side. Turn the other edge over it and stitch down the whole length of the strap. The strap thus serves as a binding to the sides of the bib. The ends of the straps are finished with a button which is buttoned at the belt. The bib is stitched to the same belt strip that is attached to the skirt. The other strip is stitched on top of this for finish.

## SIMPLE WASH DRESS.

### MACHINE WORK.

*Material.*—Gingham, calico, linen, percale or figured lawn.

*Pattern.*—A five-gored skirt, plain waist, one-piece sleeve, no cuff; may be three-quarter length, neck square or high.

*Making Skirt.*—Gores put together with French seams. Straight placket for opening; no trimming.

*Waist.*—Neck may be square and finished with embroidery insertion or with attached collar. Tucks in back and front may be arranged as desired. Bottom of sleeve may be finished with insertion or a hem. Waist should button in back. The button holes made lengthwise the box plait which is one inch or three-quarters inch wide. The buttons to be an inch and one-half apart. The seams of the waist and sleeves are French seams. The sleeves are bound with a bias strip. The waist and skirt are sewed together and a belt stitched on top. The seam coming under the belt.

## POULTRY CONTEST.

BY PROFESSOR JAMES DRYDEN.

The conditions of the poultry contest are as follows: Prizes to be announced later will be offered for—

1. The best broods of chickens hatched and raised by the contestant. The chickens are to be hatched not later than May 21. Three of the chickens to be selected by the contestants and sent to the State Fair.

Contestants desiring information as to the best methods of hatching and brooding will receive help by reading Bulletin No. 5 on Hatching and Brooding, which can be secured by writing to the Extension Division of the Oregon Agricultural College.

There is urgent need that more care be given to the poultry if the supply is to keep pace with the growing demands for poultry products. Moreover, a nice flock of chickens is an attractive feature of any farm and the farm should be made as attractive as possible in order to help stop the exodus of the young people to the cities.

It is not necessary to build expensive houses or buy high priced chickens in order to start in the egg-producing business. The best scientific methods, or otherwise, are those that produce the best results for the money and labor spent in the business.

For practical purposes the hundred or more different varieties of chickens may be divided into two or three classes. First, those whose chief characteristics are for producing eggs; second, those that are good table fowls and layers combined; third, those that are chiefly useful as table fowls.

The Leghorn and Minorcas belong to the first class. The Plymouth Rocks, Rhode Island Reds and Wyandottes to the second, and the Brahas and Cochins to the third. There are a great many others, of course, belonging to those classes, but those are named as the principal representatives of each class.

The Leghorns or small fowls will produce eggs cheaper than any other breed, because they require less food for bodily maintenance, but when we consider the value of the fowls after they have passed beyond the period of usefulness as layers, the general purpose breeds should bring twice as much money in the market as the small breeds. On the whole the writer believes that for the general farm, one of the general purpose breeds would be the most profitable to keep. But, after all, the main difference in breeds so far as egg production is concerned, is a difference in individuals. There are good and poor layers in all breeds.

The only way to find out which are the good layers in the flock is to use the trap nest. In selecting fowls the main points to consider are health and vitality in the stock. If possible, select pullets instead of fowls that are a year old or more. The pullets are the best layers. Have them mature enough so they will begin to lay in October or November.

*Hatching.*—To produce early winter layers the chickens should be hatched not later than the middle of April. The Leghorns and small breeds may be hatched a little later. The hen may be set either on the ground or in a nest off the ground. Preference should be given a nest on the ground, although they will hatch as well off the ground if the nest is carefully prepared. Cover the nest with two or three inches of moist earth, hollow slightly and cover with straw or chaff. Dust the hen with a good insect powder when setting her. It may be necessary to dust her every week with a good insect powder. Rub a little lard on the chicks the day after they are hatched. This will kill the head lice.

Keep the hen and chicks on green grass runs if possible and give them considerable range. The chicks may be weaned in about six weeks.

Examine the hen and chicks carefully for lice and examine the coop for mites. The best way to kill the mites in the coop is to paint it with some good lice killer such as Orwood Lice Killer or Carbolineum.

*Feeding the Chicks.*—Rolled oats make a very good feed for the chicks for the first few days. Bread crumbs or stale bread soaked in milk is also a good first food. Cracked wheat or cracked corn may be fed after they are a week old, but make all changes in feeding gradually. There are many different ways that chicks can be successfully fed, but where they have plenty of range the feeding is very much simplified. The exercise is very essential in order to make the chicks thrive and grow.

*Housing for Fowls.*—Fowls prefer to roost in the trees or out in the open rather than in a poor poultry house. Don't try to build warm houses. All they require is shelter from the winds and storms. Better let them roost in the trees than shut them in a close so-called warm house.

*Feeding the Hens.*—The foods fed will usually be those that are cheapest in prices. There are three kinds of food that the fowls should have. First, grain foods such as wheat, oats and corn; second, animal foods should include milk, beef scrap, bugs and insects; third, green food such as kale, rape, alfalfa, clover, etc. Then they should have plenty of grit available and also oyster shell. It has been found that fowls will lay better where part of the grain is fed in a ground condition, say about one-third of it ground. The ground feed may be fed either moist or dry. If the fowls have free range it is a pretty good plan to keep a hopper of ground grain such as bran and middlings or bran and shorts before them all the time. If the wet method is used, it should be fed the first thing in the morning and about as much as they will clean up in less than an hour. The whole grains should be fed in a litter of clean dry straw. This gives the fowls the much-needed exercise. The method of feeding, as well as the foods, has a great deal to do with the egg yield. The point is that they should be fed in such a way that they will be kept busy. The busy hen is the producing one.

## HOG-GROWING CONTEST.

BY PROFESSOR E. L. POTTER.

Rule 1. Each contestant must submit a written account of the manner in which the pig has been fed and cared for from birth. He must tell how the pig has been housed, and whether he was sick at any time, and any other unusual point in his growth and development.

The pig must be between six and eight months of age at the time of the contest.

Rule 2. After the reports have been submitted to the superintendent of the contest the better ones will be selected and the contestants requested to bring their pigs to the contest. These awards will be made according to the merits of the animal, preference being given to the pig which shows the best form and the best finish, and the best suited to be marketed for immediate slaughter.

*Suggestions.*—Select a smooth thrifty pig farrowed about March 1st. Select one that is very square and blocky, wide between the eyes, short in the legs and neck, but not too short in body. Select a pig that seems to be strong and hearty and that has a good appetite.

After the pig is a few days old feed the sow abundantly on skim milk and shorts, ground wheat or barley. Continue to feed the sow heavily all the time the pig is suckling. When the pig is about two or three weeks old make a little pen near the sow's trough so that the pig can go in but so the sow cannot. Put a small trough in this pen and put in a little slop made of shorts or middlings with skim milk. The pig will soon learn to eat readily and should have about all he wants. Be sure the pig gets plenty of exercise. As soon as there is good pasture, such as rape, clover, vetch, or alfalfa, turn the sow and pigs on that but continue to feed grain as before. If the sow is to produce two litters a year it will be necessary to wean the pigs at about six weeks old. If only one litter is expected they need not be weaned until about four months old, by which time the sow will have probably weaned them herself. From weaning until the pig weighs about 100 pounds, which he should do at about five months, keep him on good pasture and feed grain and milk. About one and one-half pounds of grain will be enough at weaning and increase until he is getting two and one-half pounds per day at five months.

When the pig weighs 100 pounds shut him in a smaller lot and fatten him. The best feeds are ground wheat or barley supplemented with skim milk. Start with three pounds of grain per day and gradually increase until the pig is getting all he will clean up readily twice per day. Give in addition to the grain from one to two gallons of skim milk per day. Sixty days in the fattening pen should make him weigh 200 pounds, which is about the right weight for market purposes.

For further information write to the Oregon Agricultural College, Corvallis, Oregon, for Circular 18 on Hog Raising. For information on points not mentioned in that circular write to the Department of Animal Husbandry, Corvallis, Oregon. The Department of Animal Husbandry will be very glad to furnish any information possible.

#### SOW AND LITTER CONTEST.

All pigs exhibited in this contest will be expected to be from one month to two months of age at the time of the contest. Each contestant shall furnish the superintendent with a carefully prepared account of the care and feed which the sow and pigs have received including the care and feed of the sow for some time previous to farrowing. The report must also state the kind of house used and any special care which was given the sow at farrowing. The superintendent shall chose the reports which seem the most promising and request the contestants to bring their sow and pigs to the contest. There awards shall be made on the basis of the best sow and litter. Size of litter, uniformity, health and thrift, as well as the general merit of the pigs shall be considered. The final awards will consider both the report and the appearance of the animals.

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