THE FARMER'S ADVOCATE.

night as the hens are getting on to the roost. Weaker hens usually go to roost first and of course take the top places. The strong, vigorous hens, going later, also wish for the top seat, and displace those already roosting. This occurs every night and to avoid it, by all means put the roosts on a level. "Roosts should not be large. The small edge of a 2x 4 inch scartling in guite large anough Round

"Roosts should not be large. The small edge of a 2×4 inch scantling is quite large enough. Round cedar poles serve the purpose very well, but the splitting of the poles causes cracks in which the vermin harbor. Roosts should be made so that they can be cleaned easily, and made movable as all interior fixtures should. It is a good plan to hinge roosts to the wall so that they can be raised in the day-time or for cleaning-out purposes. The roosting quarters should always be on the warmest side of the house, or at least, farthest away from the windows. No ventilation should be admitted through the wall near the roosts; sometimes, when nights are especially cold, a cotton screen is let down in front of the roosts. It is an advantage in that it keeps the roosting quarters a little warmer, but the custom of boarding up the roosting quarters so that there is very little ventilation allowed and no space for cleaning or letting the sun enter during the day, is bad."

Weed Out The Male Birds.

EDITOR "THE FARMER'S ADVOCATE":

The worker bees put their house in order by killing off all the male bees as soon as their services are no longer required. What a great benefit it would be to the poultry producer and the poultry product consumer if the hens of the flock would likewise dispose of the male birds in those flocks that are indifferently managed. The worker bee permits no star boarder to loaf around and consume the product of her labor. The hen is not like the bee in asserting her rights. If she were, then her verdict would be, "Rooster you must die."

There are over two million five hundred thousand roosters of the various breeds of chickens kept for breeding purposes by the people of our country. Of this vast army perhaps one hundred and fifty thousand have a right to live for another year of service. One hundred and fifty thousand may be good enough as individuals and in breeding to be used in the increase of their kind. What of the two million three hundred and fifty thousand that are usually permitted to live, birds that consume feed, worry the hens and reduce the quality of market eggs?

The function of the rooster is to develop and distribute germ cells, during a short period of three months February, March and April. These germ cells should be distributed only to such egg-laying individuals as are desired to perpetuate the breed. The germ cell is a living organism capable of starting a chain of development, and here is where the mischief lies if they are distributed where they do not serve their proper function in race perpetuation.

The function of the modern hen is to produce eggs, ten per cent. of which may be desired for the increase of the breed and the remaining ninety per cent. for human food. Nine eggs are used for human food where but one is used for hatching. Only one-tenth of the eggs that a hen lays require fertilization. Why fertilize the nine-tenths of the product that is used for human food? The addition of a living germ cell to an egg that is produced for human food does not add anything to its value and may set up a chain of embryo development that will make the egg quite unfit for human food.

Eggs gathered from flocks where the roosters are permitted to run after the hatching season is over, are not desirable for storage. They are not desirable in the pantry during periods of warm weather as high temperatures will start incubation. Eggs in the first stage of decay are not desirable for human food. It is an easy matter to prevent the fertilization of eggs. If the male bird is just an ordinary one an axe and a block of wood will prevent further mischief. If the male bird is possessed of such merit as would warrant his being boarded for a year to be used in the next season's breeding operations, then give him an enclosure of his own and see that he stays in it. The cost of food consumed by an ordinary rooster is about twenty cents per month. Can you affordit? If you keep poultry with profit as your object, can you afford to keep a star boarder for nine months and perhaps have him doing mischief all the time? The two million, three hundred and fifty thousand odd, unnecessary male birds are costing the country about three and a half million dollars per year while enjoying life. These unnecessary birds are at the same time doing about ten million dollars damage to the egg-producing business. If every person owning a rooster would manage him as a male bird should be managed the poultry industry would be benefited by additional profits of many million of dollars .- Experimental Farms Note.

mainder of the flock might have been saved. A chick or even a mature bird is hard to doctor, and it is oftentimes advisable to put them out of misery at the start instead of running the risk of spreading disease germs. An endeavor should be made to keep up the vitality of the chicks. It is the strong, healthy, vigorous pullet that makes the profitable hen. Weak, anemic birds seldom lay a sufficient number of eggs to pay for their food. In the first place the breeding stock should be feed. carefully selected, and then the chicks raised on wholesome feed and kept in sanitary surroundings. Filth and dirt is the breeding place of disease, and it is regrettable that too many poultry houses are not in a sanitary condition during the summer. Give the growing flock new scratching ground occasionally. Some poultry-keepers go so far as to move the coop every day, claiming that in this way birds are kept cleaner and healthier. This is more or less essential with young turkeys, as nothing puts a poult off its feed so quickly as feeding for a length of time off the same ground. The chicks should have a keen appetite and always be ready for their feed, but that does not mean putting them on short rations. Feed them what mash they will clean up in ten or fifteen minutes, then remove the surplus and clean the trough. If the grain is fed in a litter or even in a hopper the birds will not overfeed if given an opportunity to exercise. The care of the growing flock will influence egg production next winter.

In regard to the mature birds they require a little different feed than in the winter. Corn should be eliminated or nearly so, as it is too heating and when fed has been responsible for loss of birds. Wheat is the standard grain for fowl the year round. As it is so high priced other grains can be mixed with it to ad-



Bracing the Load.

vantage. Good quality oats are excellent grain for poultry, and might comprise half the ration during the summer at least. They are not of a heating nature and aid in keeping up the vitality of the flock. Barley can also be fed to a certain extent. The kind of feed and nature of the surroundings go a long way in keeping the flock healthy.

Tuberculosis is one of the most serious diseases the poultry man has to face. It is necessary to watch for this disease summer as well as winter. It is just as necessary to keep poultry houses clean and disinfected in summer as in the cold weather, and even more so. Watch the hens. Any which show signs of going light, grow pale around the head, mope around and sometimes show lameness and diarrhoea should be removed from the flock. Those showing well-marked symptoms should be killed and examined. If their livers are enlarged or show white or yellowish-white raised spots, there can be little doubt but that the disease has gained a foothold in the flock. Kill and burn or bury in lime all those showing disease. Clean up the chicken house. Disinfect by an application of whitewash to which has been added a 5 per cent. carbolic acid solution. Plow up the poultry yards and apply fresh lime. You cannot afford to fool with this insidious disease which is growing more prevalent in farm flocks as the years go by.

pearance of the product at its destination. In a recent bulletin compiled by Edwin Smith and J. M. Creelman, formerly connected with the Precooling and Cold Storage Plant at Grimsby, are found the following notes and accompanying illustrations on loading cars with climax baskets. The bulletin is published by the Dairy and Cold Storage Branch of the Dominion Department of Agriculture, and we have taken the liberty to quote from it in the following paragraphs.

The climax basket is used largely throughout the fruit regions of the northeastern part of the continent in marketing summer or tender fruits. In Canada the 6-quart climax basket is $4\frac{1}{2}$ inches deep, $15\frac{3}{6}$ by 7 inches at the top, and $13\frac{1}{2}$ by $5\frac{1}{6}$ inches at the bottom, holds from 6 to 10 pounds of fruit, and is used largely for distant shipments of cherries, gooseberries, currants, plums, pears, peaches and grapes. The 11-quart climax basket is $5\frac{3}{4}$ inches at the bottom, contains 15 to 20 pounds of fruit, and is used with shipments of cherries, plums, pears, tomatoes, vegetables, pears and apples. Larger baskets, 15-quart and 16-quart in size, are used for cantaloupes; smaller baskets, 4-quart in size, are sometimes used with plums and grapes.

In theory all baskets should run lengthwise of the car to give free spaces for the passage of cold air from the ice-bunkers to the centre of the car; baskets crossing the car shut off these currents. In practice, it is difficult to do this, on account of different sizes being loaded in the same car, and also due to injury inflicted on the fruit in so placing. To partially obviate the fault of having baskets running crosswise of the car raised floor racks are used, slatted to accommodate the different sized baskets. These allow a current of cold air to pass freely from the ice-bunkers along the floor to the centre of the load.

In loading a car of basket fruits, it is first necessary to know the number of baskets to be loaded. Ordinarily between 2,400 and 2,500 6-quart baskets, or 1,200 11-quart baskets, are required to make the minimum car-load weight, 20,000 pounds. Baskets are placed along the end of the car and down one side, as far to the centre as the load can be made and allow room for centre bracing. The height of the load is 'then computed. In case the load is to be made partially of 6-quart baskets and 11-quart baskets, it will be necessary to "square up" the load of one type of baskets, placing them all in one block. Loading is then started from the bunkers and the tiers carried out along the side of the car to the full height of the load. For rapid loading, operations may start at both ends of the car at once. necessary that the baskets be kept pressed firmly against the side of the car, and, as the load progresses, every basket should be put in place squarely and firmly so as to keep the baskets touching end to end and the alignment perfect. This is necessary to get a rigid load and to have the load finish satisfactorily both towards the side of the car and at the end, where a bulkhead is to be placed squarely across the car.

In finishing off the last two tiers, an alley will be formed in which it is difficult to work unless the baskets are squared up three-piles or four-piles (meaning that the piles are built up squarely on a base of three or four baskets). It sometimes happens that, due to an oddsized car or odd-sized baskets, the alley will be too wide so as to make a "loose" load. This can be determined before the load has been made, when the baskets are placed across the end. In such a case, it is advisable to place several baskets crosswise throughout the car to tie the load.

Basket loading does not require as heavy bracing in the centre of the car as boxes, since the handles are effective in tying the load. Six 2- by 4-inch braces are sufficient. They need to be squeezed into place with a sledge-hammer securing the braces with blocks and spikes. The gates should not be farther apart than is convenient for entering the braces—about two feet is sufficient.

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A Few Hints For Summer Flock Care.

On many farms there is a heavy loss in the flock due to various causes. While the birds on free range should naturally be healthier than when in confinement, improper feeding for hot weather and the high temperature apparently lowers the vitality of many. Usually a number of chicks succumb to various ailments, and they are thrown out of the pen with barely a thought given to the cause of death. They may have died of some contagious disease, but no investigation is made until the flock becomes greatly reduced. By taking necessary precautions when the first few died the treHORTICULTURE.

Loading Climax Fruit Baskets in Cars.

The fruit and vegetable industry in this country is developing, and the climax basket is extensively used as a container. As co-operative associations extend their business carload shipments are called for, and this necessitates expert or experienced hands in loading. This end of the business is immensely important, for upon the methods adopted or skill exercised in stacking and bracing the baskets depends the quality and ap-

New Varieties of Strawberries.

Considerable work has been done during recent years with the object of originating varieties of strawberries that may combine the good characters of our established kinds without possessing their undesirable qualities or weaknesses. The Horticultural Experiment Station at Vineland and the Horticultural Department of the Agricultural College at Guelph have been devoting considerable time to this enterprise, and this year Prof. J. W. Crow, at the Guelph institution, is fruiting 300 different plants which are selections from over 7,300 plants. Prof. Crow will welcome any strawberry grower during the fruiting season, and explain the parentage as well as the good and and bad qualities of the most promising varieties which have been originated. A card addressed to Prof. Crow will bring information as to the season and date of fruiting of these new creations.



Showing Method of Loading a Car with Climax Baskets.

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