



Millions of Dollars' Worth of Crops are lost Annually in this Country that could be Utilized by Livestock. Livestock Raise Rangeland, Maintain Soil Fertility, Furnish the Best Markets for Crops and Distribute Them More Evenly over the Year. This American Angus Herd is Doing its Bit.

## LIVESTOCK IN WAR TIME

*The place of Livestock in war economy, by  
R. H. Williams in The Breeders' Gazette, Chicago*

**L**IVESTOCK always has and always will play a prominent part in war. The larger number which must remain at home to equip and supply those set up and ally on the firing line have just as important work before them as the man who pulls the trigger. Our animals may be drawn on closely, and the calls used to supply meat, but it is important that the best breeding stock and the animals of tender age be maintained for future use. It should be remembered that all animals must serve man and those that can serve him to the best advantage will be longest in demand. The object of feeding animals is to transform food materials of little value to man into more valuable products. Thus cattle and alfalfa make a fairly well-balanced ration for cattle which convert them into milk and meat. Human beings cannot make direct use of silage and alfalfa, but they can use milk and meat. Some of the distinct advantages resulting from livestock farming may be summed up as follows:

Farm animals utilize many products which would be wasted without them. They maintain soil fertility and the crop-growing capacity of the land. They offer a ready means for storing roughage, concentrating it and holding it in suitable form for emergencies. They are machines to utilize and manufacture non-edible products into edible forms. They offer a diversified means of agriculture. They supply the best market for farm crops. They regulate and distribute the work evenly over the year. They furnish the only means for utilizing immense areas in the west. They tend a ~~chance~~ to farm life and develop industrious habits in young and old.

**Livestock and Waste Elimination**  
Stockmen in the United States and Canada should aim to produce a maximum number of pounds of human food from their farms. It happens that practically all animals thrive best when given reasonable amounts of grain, but grain is suitable for human consumption, and at least 75 per cent. of the food value is lost by feeding it to animals and consuming the animal products resulting. It so happens, however, that livestock may be used chiefly for consuming waste products. The table of a small amount of grain in such feeding may result in fully two or three times as great return as when fed

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alone. This is the reason why certain grains may be used to advantage in supplementing otherwise unsatisfactory rations, while they would be unprofitable if fed alone. Hogs and poultry require food of a concentrated nature, and therefore, they should be limited to the extent of their ability to utilize waste or foods which would accumulate without them. Skim-milk, which may be easily converted into cottage cheese and used directly for human consumption, may also be used for hog production, in small amounts to supply balanced protein in a ration otherwise unbalanced. It is important that we should strike an efficient balance between the various foods used for animal and human consumption. Certainly we cannot hope to do without the hen and hog, even if grains cost two to three cents a pound, for these animals may be largely fed on waste.

Livestock may be used to the best advantage as scavengers, and those that are best suited for this purpose will always be in greatest demand. Coarse bulky foods such as hay, straw, range plants and the products of manufacture, including bran, cotton seed meal, oil-cake, butter-milk, skim-milk, beet pulp, gluten, and a hundred other foods would be of little value without live-stock.

Millions of dollars' worth of crops are lost annually in this country that could be utilized by livestock. Weeds and fodder growing on ditch banks, roadside, fence-corners and in all out-of-the-way places should be converted into meat, wool or milk. This may be done with facility if the farm operations are managed with a view to utilizing these products to their maximum. Livestock must convert corn and alfalfa, and the waste products of cotton and wheat, as well as millions of tons of grain, and at least 75 per cent. of the food value is lost by feeding it to animals and consuming the animal products resulting. It so happens, however, that livestock may be used chiefly for consuming waste products. The table of a small amount of grain in such feeding may result in fully two or three times as great return as when fed

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that the animals may serve best. It happens that there are certain animals which may be useful for special purposes where other animals would fail. Dairy cows, pigs and poultry do best on farms where feeds are supplied them, and therefore, they should be limited in order to place them where they can serve best. Our problem is to fit livestock where it is of greatest service. The slogan should be: "Save stock where stock can serve best," and not, "More livestock."

### How to Increase Livestock

The west is not receiving maximum returns from the livestock industry. Careful estimates indicate that with proper management it is possible to increase the number of animals on the range forty to fifty per cent. During the next ten years this increase should be reached. Livestock preparations should be seriously considered by range stockmen. Among the specific ways to effect it are the following:

**Conserve the range.** Reduce the mortality. Improve methods of management. Use better animals. Buy land and develop it. Destroy poisonous plants. Co-operate in production and marketing. Use registered sires. Destroy predatory animals. Develop more water. Raise silage to tide animals over drought. Have better sanitation. Secure a higher percentage of offspring.

If stockmen in the west would improve conditions and attend to their animals as well as they could, it is certain that fully 40 per cent. more stock could be produced, and this would be of better quality. By culling out inferior animals and providing better conditions for those that remain greater returns will be possible. There are too many bulls on the range. The following considerations may guide in eliminating the unsatisfactory animals:

Get rid of all males and females that do not produce, or are not regular breeders. Cull out all narrow, long-legged animals. Sell the wild ones. Grade your stock so as to get it uniform in size, color, breed type and other characteristics. Bell breeding animals better to perform and he should feel the responsibility.

mortality is high. Castigate all grade males. Discard inferior native females.

Cull out all animals that are weak in constitution or do not reach early maturity. Eliminate the small animals and those that are not good reactors.

It is a mistake to let breed range animals, or to breed females at too young an age. The bulls should be kept up and fed during the winter months. The best animals require more attention than the inferior ones, for those animals improved by man require man's attention to maintain their quality. Among the chief considerations of improving animals by means of breeding are the following:

Use nothing but pure-bred sires of one particular breed. Never sell the best individuals, but sell the inferior ones. Take proper care of stock during critical periods so as to avoid high mortality or low yield of offspring. Create a special market. Avoid inbreeding. Do not breed from immature animals, but allow them to gain their growth.

**The Responsibility of Stockmen**  
Western stockmen on the irrigated and dry-farms also have a responsibility. Their operations so as to increase food production. Each person should look over his farm and take stock with a view to increase his food units which may be marketed as a surplus. They may plow up strips of inferior land and seed crops which will produce more food, make every inch produce its maximum, grow the greatest crops possible of those foods which are the best for man or farm animals, conserve the manure as well as the manure, prevent disease by proper sanitation, clean up the farmstead and burn all rubbish.

Treat the animals more closely and provide feed and comfortable quarters for stock, avoid losses due to inferior feeding or boating, vaccinate for blackleg and hog cholera, test cows for tuberculosis and kill all reacting animals, use greater precautions in purchasing animals to make certain that they are free from infectious diseases, use more efficient animals, and develop greater sympathy for the business.

American producers of human food dare not take chances, they should follow well tested practices which are known to yield returns. This is no time for experimentation, but hate and certain products should be emphasized. Each stockman has a definite work to perform and he should feel the responsibility.