



# FARM AND DAIRY & RURAL HOME



We Welcome Practical Progressive Ideas

The Recognized Expert of Dairying in Canada

Increase the wealth and glory of a country; but its real strength and stamina are to be looked for among the cultivators of the land.—Lord Chatham.

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## Feeding Cows for Great and Economical Milk Production

An Address on the Principles and Practice of Feeding by Prof. H. T. Van Pelt—Part I

IN too many instances the producer of milk and butter fat has overlooked the importance of reducing his operations to a strictly business basis. This is demonstrated by the fact that so often he refuses to apply business principles and even holds them up to scorn as being theoretical, scientific, and impractical. He has refused fundamentals which have made millionaires and leaders of men in other lines of industry. The truth of this is evidenced by the fact that of the millions of cows now being milked in this country, only one out of three on the average return a real profit. Therefore, in dealing with this subject of feeding cows for great and economical results, if I can make impressive the fact that real success depends upon reducing the feeding of cows to a basis governed by the intelligent and thoughtful application of business detail, your time will not be wasted.

As a matter of fact, the farms of the United States are her greatest factories. Every cow is kept there as a machine of certain capacity and efficiency for the purpose of converting raw materials—the grains and grasses which grow in the fields—into a finished commodity of commerce. The value of each machine should be measured by the amount of feed she can consume and convert profitably into milk and butter fat. To determine this point, it is necessary for the dairyman to weigh and test the milk at intervals sufficiently close to determine the relative merits of individuals from the production standpoint and determining the amount and cost of feed she consumes, he is prepared to say which is the profitable cow and which is the loafer, provided he has given the animals the opportunity for producing their maximum yield. "The fact that two-thirds of the cows being milked are unprofitable, does not indicate that these cows are all poor individuals and so poorly bred as to be unable to yield a profit. Proper feeding alone would suffice to make profitable at least half of the cows that are now showing a loss.

### The Basic Principles of Feeding

There are certain well-known facts pertaining to the feeding of cows that should be adopted and practiced by every dairyman. He should have as clear an understanding of what milk is composed

of as the successful manufacturer has of what the article he is making contains. The great secret of manufacturing milk largely and at a profit is feeding through the most efficient and capacious machine abundantly that raw material from which milk is most economically made. To accomplish this the feeder must recognize the fact, even though it may appear

scientific, that milk is composed of four constituents in addition to water, namely protein, carbohydrates, fat and mineral matter. There never was a pound of milk made by a cow from anything except food that she had formerly consumed. No cow, great as she may seem, is a mysterious being. She cannot make something out of nothing. It is, therefore, essential to provide her with such food in such quantities with daily regularity that her body may be maintained and a sufficient amount of protein, carbohydrates, fat and mineral matter remain that she may have available the raw material necessary to stimulate her greatest production.

It is not my purpose, however, to go into detail relative to the detailed analysis of milk and foodstuffs, nor is it my belief that it would be to your advantage for me to prescribe certain rations to be used upon your herds. Were you to begin at once feeding your herds a ration seemingly perfect, although there might come certain improvements the results would not be satisfactory. This is due to the fact that cows differ so greatly in individuality and, furthermore, one and the same cow differs so greatly from period to period. In other words, the ration that might be perfect for one cow would be inefficient for another, and the ration perfect for a certain cow would not be conducive to greatest results at another period of lactation.

### Start With the Individual

To attain maximum results, it is absolutely necessary to study, care for and feed every cow individually. On first thought, this would seem to incur much additional labor, but a trial will prove that very little extra time is required, and that the extra effort will result in profits far greater than any work that is now being done. It is not unreasonable to expect that the response on the part of most cows in the herd will be sufficient to almost, if not quite, double the yield of the bad as a whole, and by following a systematic plan, those cows which do not respond are detected, enabling their owner to dispose of them and fill their places with animals more efficient.

Calling to mind the fact that the  
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"The Long and The Short of It"

This interesting photograph was obtained by Farm and Dairy at the time of the recent convention in Peterboro of the Eastern Ontario Dairymen's Association. On the left is Mr. Wm. Goo, of Toronto, the official stenographer, height 5 ft. 6 in. Next comes Mr. James Sanderson, of Oxford Centre, the president of the association, height 6 ft. 1 in. Mr. Henry Glendinning of Manilla, the well known Farmers' Institute speaker, stands next, height 6 ft. 1 in. On the extreme right is "Sandy" Trotter, of Peterboro, height 6 ft. 9 in. Mr. Trotter is advanced in years and somewhat stooped. Had he straightened up a little more he would have appeared a couple of inches taller than he does. We had hoped to have had Senator D. Derbyshire, of Brockville, Ont., whose height is 6 ft. 2 1/2 in., in the photograph, but Mr. Derbyshire had left for home before the photograph was taken.