

Economy of the Round Dairy Barn by Wilber John Fraser.txt
holding 102 tons, making a total silo capacity of 256 tons.

As the large barns hold 100 cows, the same allowance of silage per cow for the season would require silo capacity for 620 tons. As the silo in the round barn 90 feet in diameter would be 71 feet deep, it would need to be only 20 feet in diameter to hold 620 tons. To store 620 tons of silage in silos built outside the rectangular barn would require two silos, each 20 feet in diameter and 44 feet deep. [B] These are the sizes on which the figures for cost of silos of the Gurler type, given in Tables 2A and 2B, were used.

[B] Since the deeper the silo the more firmly the silage packs, one silo 71 feet deep will hold as much as two silos of the same diameter and 44 feet deep.

[Illustration: FIG. 10. INTERIOR OF COW STABLE, SHOWING WATER TROUGH WITH FLOAT VALVE, SALT BOX, AND DOOR INTO DAIRY.]

The table (page 12) is the final summing up of the cost of all the material for the completed dairy barns, with silos, and shows a saving of from 34 to 58 percent in favor of the round barn and silo, or an actual money saving in this case of from \$379 to \$1184, depending upon the size and construction of the barns.

Thoughtlessly, men go on building rectangular barns, but what would this reckless disregard of a possible saving of 34 to 58 percent mean in a year's business on the farm? Some illustrations may help us to understand what this money saved in building a round barn really amounts to, and its convenience is also a great saving. If the dairyman discarded the idea of a rectangular barn and built a round barn instead, he could take the money thus saved and buy one of the best pure-bred sires for his herd, and also three to ten pure-bred heifers or fine grade cows. Either of these purchases might double the profit of the herd. Or, this saving, properly applied, would purchase many labor-saving devices which would make life less of a drudgery on many dairy farms. Is not such a saving worth while?

[Illustration: FIG. 11. COW COMFORT IN A ROUND BARN.]

When the comparative cost and merit of two constructions are known, it is a poor financier who will pay extra for the one which is inferior. If a man received bids from contractors for a building, he would be a foolish man who would accept one which is from 34 to 58 percent higher than the lowest bidder, especially when he knew the lowest bidder would put up the most convenient and substantial building.

DISADVANTAGES OF THE ROUND DAIRY BARN

The disadvantages of the round dairy barn are, that it cannot be enlarged by building on as readily as can the rectangular form, but as the round barn may be built higher to the eaves than a rectangular barn 36 feet wide, provision can be made for the growth of the herd by building so as to put cows in the second story and still leave sufficient mow room for hay.

The objection is frequently raised that a round barn is difficult to light. This difficulty is entirely overcome in a barn 90 feet or less in diameter, if a sufficient number of properly spaced windows are used. See Figs. 4 and 30. With the same number of windows, the light is more evenly distributed in a round barn and the sun can shine directly into some portion at all hours of the day during the winter.

[Illustration: FIG. 12. FIRST STORY WALL, AND FOUNDATION FOR SILO, FEED ALLEY, AND MANGER; SILL IN PLACE, READY FOR JOISTS AND STUDS.]

The objection has been raised that rectangular objects cannot be placed in a circle without a waste of space, but this does not apply to a dairy