

Table showing the number of Rails, Stakes and Posts required for 10 rods of post and rail fence.

Length of rail feet.	Length of Panel feet.	No. of Panels.	No. of Posts.	Number of rails.	
				6 rails high.	7 rails high.
10	8	20½	21	124	145
12	10	16½	17	99	116
14	12	13½	14	83	96
16½	14½	11½	12	68	79

In arranging the above table 12 inches lap have been allowed.

The greater the lap the stronger and more durable the fence. To ascertain the number of rails, etc., for any desired length of fence, multiply the numbers given in the above table by the length in feet, and point off one figure from the left, and you have the desired result.

MEASUREMENT OF HAY.

Only an approximation of its weight can be learned by measurement.

As nearly as can be ascertained, 25 cubic yards of average meadow hay in windrows make a ton; 20 cubic yards of hay loaded on a waggon or loosely mowed in a barn; if well settled in a mow or stack 15 cubic yards will make a ton.

When hay is baled or closely packed for shipping 10 cubic yards will weigh a ton.

To find the number of tons in square stacks multiply the length in yards, by the width in yards, and that by half the altitude in yards and divide the product by 15.

To find the number of tons in circular stacks multiply the square of the circumference in yards by 4 times the altitude in yards and divide by 100; the quotient will be the number of cubic yards in the stack; then divide by 15 for the number of tons.

A truss of hay, new, is 60 lbs.; old, 56 lbs.; straw, 40 lbs.

A load of hay is 36 trusses.

A bale of hay is 300 lbs.

RULES FOR DETERMINING THE WEIGHT OF LIVE CATTLE.

For cattle of a girth of from 5 to 7 feet, allow 23 lbs. to the superficial foot. If the girth be from 7 to 9 feet, allow 31 lbs. to the superficial foot.

For small cattle or calves, with a girth of from 3 to 5 feet, 16 lbs to the superficial foot should be allowed.

For pigs, sheep, and all cattle measuring less than 3 feet girth, allow 11 lbs. to the superficial foot.

Measure in inches the girth round the breast, just behind the shoulder blade, and the length of the back from the tail to the fore part of the shoulder blade. Multiply the girth by the length and divide by 144 for the superficial feet, and then multiply the superficial feet by

the number of lbs. allowed for cattle of different girths and the product will be the number of lbs. of beef, veal, or pork in the four quarters of the animal. To find the number of stone divide the number of lbs. by 14.

When the animal is but half-fattened, a deduction of 1 lb. in 20 should be made; and if very fat, 1 lb. should be added for every 20 lbs. of the weight.

CASK GAUGING.

Gauging is the art of measuring the capacity of casks and vessels of any form. In commerce most of the gauging is done by the diagonal rod, which gives only approximate results, but sufficiently accurate for ordinary purposes.

Ullage is the difference between the actual contents of a vessel and its capacity, or that part which is empty.

To Measure Small Cylindrical Vessels.

Multiply the square of the diameter, in inches, by 34, and that by the height in inches, and point off four figures, the result will be the capacity, in wine gallons and decimals of a gallon. For beer gallons multiply by 28 instead of 34.

To Measure a Cask by Three Dimensions.

1st. Add the bung and head diameters in inches and divide by 2 for the mean diameter.

2nd. Multiply the square of the mean diameter by the length of the cask in inches.

3rd. Multiply the last product by .0034 for wine gallons, .0028 for beer gallons. If the cask is not full, stand it on end and multiply by the height of the liquid, instead of the length of the cask, for actual contents.

When the cask is much bilged or rounded from the bung to the head, a more accurate way is to gauge by four dimensions, as follows:

To Measure a Cask by Four Dimensions.

1st. Add the bung and head diameter in inches, and the diameter in inches between bung and head.

2nd. Divide this sum by 3 for the mean diameter.

3rd. Multiply the square of the mean diameter by the length of the cask in inches.

4th. Multiply the last product by .0034 for wine gallons, .0028 for beer gallons.

1. The ale gallon contains 282 cubic inches.
2. The wine gallon contains 231 cubic inches.
3. The bushel contains 2150.4 cubic inches.
4. A cubic foot of pure water weighs 1000 ounces or 62½ pounds Avoirdupois.

AVERAGING PAYMENTS.

Table for banking and Equation, showing the number of days from any date in one month to the same date in any other month. Example: How many days from the 2nd of February to the 2nd of August. Look for February at the left hand, and August at the top, in the angle is 181.

January
February
March
April
May
June
July
August
September
October
November
December

CUSTOMS

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