## UNIVERSITY OF NEW HAMPSHIRE EXTENSION SERVICE

Published and distributed under the Acts of Congress of May 8 and June 30, 1914, by the University of New Hampshire Extension Service, Durham, N. H., J. C. Kendall, Director. The United States Department of Agriculture cooperating.

# New Hampshire Forest Market Report FALL, 1936 

By K. E. Barraclough, Extension Forester



Pulpwood from the forests of northern New Hampshire
The forest market report is prepared for New Hampshire farm woodland owners. The prices quoted are not guaranteed in any way, and are subject to change without notice. Prices depend on the quality of the products, the demand, and the desire of the woodland owners to sell.

Information is also given for the marketing of timber, suggestions for grading logs and information on various log rules.

## SITUATION

At some points white pine stumpage is firmer than a year ago. The price is controlled largely by the box board market which has not improved as rapidly as have some other lines. Too many logs are sawed into box boards. Woodland owners who own pine stumpage must realize that it does not pay to grow box lumber, and should make every effort to produce a better quality pine.

The market for red pine has not changed greatly from a year ago. The best market is for piling and poles. There is a more active demand 'for spruce and hemlock for lumber. At some points a higher price is offered for stumpage. The demand for pulpwood is better and prices are stronger.

There is an active demand for quality hardwood in many sections.
It is possible to grow good timber in New Hampshire; but at the pres-
ent time most of our forest lands are in the condition of a garden that was never weeded.

If the forests of New Hampshire are to yield a greater return from the use of forest products, enhance the recreational advantages of the state, continue an important factor in flood and erosion control, build up soil fertility, and be a factor in stabilizing the economic life of the people, our forest lands must be managed in a manner that will meet these various needs.

## WHITE PINE

| Town |
| :---: |
| Allenstown |
| Boscawen. |
| Charlestown |
| Cornish |
| Exeter |
| Franklin |
| Grantham |
| Groveton |
| Keene. |
| Manchester |
| Merrimack |
| Milford |
| Nashua |
| Marlcw |
| Newport |
| North Walpole |
| Rochester |
| Tamworth |
| Webster |
| Weare |

Logs delivered at the mill
$\$ 9.00 \mathrm{M}$
7.00 to 9.00 M
9.00 to 12.00 M 9.00 to 10.00 M (9.00 to 10.00 M 6.00 to 7.50 cd .) 10.00 to 12.00 M 7.00 to 7.50 M 9.00 to 12.00 M 12.00 to 14.00 M 11.00 M 12.00 to 14.00 M 8.00 to 10.00 M 10.00 to 12.00 M 10.00 to 12.00 M

## RED PINE

Manchester . . . . . . . . . . . . . . . .
Nashua . . . . . . . . . . . . . . .

| Allenstown |
| :---: |
| Exeter |
| Franklin |
| Groveton |
| Grantham |
| Keene |
| Lincoln |
| Milford |
| Manchester |
| Nashua |
| Newport |
| Orford |
| Piermont |
| Rochester |
| Tamworth |

$\$ 10.00$ to 11.50 M
10.00 to 15.00 M
9.00 to 10.00 M

## HEMLOCK

$\$ 9.00 \mathrm{M}$ 8.00 to 10.00 M
9.00 to 10.00 M 11.00 to 12.00 M 8.00 to 9.00 M 10.00 to 12.00 M 10.00 M 10.00 to 12.00 M 12.00 to 14.00 M 12.00 M
9.00 to 10.00 M 10.00 to 11.00 M

## Stumpage

$\$ 3.00 \mathrm{M}$ 4.00 to 6.00 M 2.00 to 4.00 M 4.00 M 3.00 to 5.00 M 4.00 to 6.00 M 2.00 to 5.00 M 3.00 to 6.00 M (2.50 to 4.00 M 2.00 to 3.00 cd .) 4.00 to 6.00 M 1.00 to 2.75 M 3.00 to 7.00 M 5.00 to 7.00 M 5.00 to 8.00 M 3.00 to 5.00 M 3.00 to 5.00 M 3.00 to 6.00 M 3.00 to 4.00 M 4.00 to 6.00 M
$\$ 4.00$ to 5.00 M 3.50 to 6.00 M 2.00 to 4.00 M
$\$ 3.00 \mathrm{M}$
3.00 to 5.00 M
2.00 to 4.00 M
3.00 to 6.00 M
3.00 to 5.00 M
2.00 to 3.00 M
1.50 to 2.00 M
3.00 to 5.00 M
4.00 to 6.00 M
5.00 to 7.00 M
5.00 M
2.00 to 4.00 M
2.00 to 4.00 M
2.00 to 4.00 M
3.00 to 4.00 M

Campton.
Grantham
Groveton.
$\$ 11.00$ to 13.00 M
12.00 to 14.00 M 9.00 to 10.00 M 3.00 to 6.00 M


## SPRUCE-FIR FOR PULPWOOD

Town

| Rough Pulp | Peeled Pulp | Stumpage | $\%$ <br> Spruce |
| :---: | ---: | :---: | ---: |
| $\$ 6.00$ to 8.00 cd. | $\$ 8.50$ to 9.00 cd. | $\$ 2.00$ to 3.00 cd. | $65 \%$ |
| $\ldots \ldots \ldots \mathrm{~cd}$. | 6.50 to 8.50 cd. | on car |  |
| 8.00 to 8.50 cd. | 10.00 to 10.50 cd. | 1.75 to 2.25 cd. | $85 \%$ |
| $\ldots \ldots \ldots$. | 8.50 cd. on car | 2.00 to 3.00 cd. | $85 \%$ |

POPPLE FOR EXCELSIOR

## Town

Acworth
Lebanon
Merrimack
Newport
Wakefield
Wolfeboro

## Town

Grantham
Rock Maple White \& Yellow Birch

## Keene

Rock Maple
White \& Yellow Birch Elm
Red Oak
Lincoln
Rock Maple

## Nashua

Red \& White Oak. White Birch

## Newport

Rock Maple
White \& Yellow Birch
St. Johnsbury, Vt.
White Ash
20.00 to 30.00 M

Tamworth

Basswood
Rock Maple
Red Oak
White Ash
White Birch
Yellow Birch

Peeled Popple Delivered
$\$ 5.00$ cd. side road
8.00 to 9.00 cd .
7.00 to 8.50 cd . $\$ 1.00$ to 2.00 cd . 6.50 to 8.50 cd . on car 1.00 cd .
7.00 to 8.00 cd . 7.50 to 10.00 cd .

## HARDWOOD

Logs delivered at the mill

$$
\begin{aligned}
& \$ 12.00 \mathrm{M} \\
& 12.00 \text { to } 14.00 \mathrm{M}
\end{aligned}
$$

| 15.00 to 18.00 M | \$8.00 to 9.00 |
| :---: | :---: |
| 10.00 to 12.00 M | 3.00 to 4.50 |
| 21.00 to 25.00 good quality |  |
|  |  |

14.00 to $24.00 \quad 5.00$ to 7.50 M
20.00 M good logs
$15.00 \mathrm{M} \quad 5.00 \mathrm{M}$
12.00 to $14.00 \mathrm{M} \quad 6.00$ to 8.00 M 12.00 to $14.00 \mathrm{M} \quad 3.00$ to 5.00 M
Town Logs delivered at the mill Stumpage

| W alpole |
| :---: |
| Basswood |
| Red Oak |
| Rock Maple. |
| White Ash |
| White Birch |
| Woodstock \& Rumney |
| Basswood |
| White Birch. |
| Yellow Birch |
| Webster |


| $\ldots \ldots \ldots$ | 4.00 to 7.00 M |
| :--- | ---: |
| 10.00 to 16.00 M | 3.00 to 7.00 M |
| 12.00 to 20.00 M | 3.00 to 7.00 M |
| 10.00 to 13.00 M | 3.00 to 5.00 M |
|  |  |
| 12.00 to 14.00 M | 3.00 to 3.50 M |
| 13.00 to 16.00 M |  |
| 15.00 to 16.00 M | 4.00 to 5.00 M |

## CORDWOOD

| Town | By cord | Stovewood | Cutting per cord | Stumpage |
| :---: | :---: | :---: | :---: | :---: |
| Allenstown | \$6.00 |  | \$2.00 | \$1.00 |
| Claremont | 7.00 | \$9.00 |  | 1.50 |
| Exeter | 7.00 to 8.00 | 9.00 to 10.00 | 1.50 to 2.00 | 2.00 to 3.00 |
| Franklin |  |  | 1.50 to 2.50 |  |
| Groveton | 6.00 to 7.00 | 7.00 to 8.50 | 1.50 to 2.00 | 1.00 to 1.50 |
| Grantham | 5.00 to 6.00 | 8.00 | 1.75 to 2.00 | . 50 to 1.00 |
| Keene | 4.50 to 6.00 |  | 1.50 to 2.00 | . 50 to 1.50 |
| Nashua |  |  | 1.50 to 2.00 |  |
| Newport | 5.00 to 8.00 | 9.00 to 10.00 | 1.75 to 2.50 | 1.00 to 3.00 |
| Manchester . | 7.00 to 8.00 |  |  |  |
| Merrimack | 7.50 to 9.00 | 9.00 to 10.00 |  | .75 to 1.00 |
| Tamworth | 5.00 to 8.00 | 8.00 to 10.00 | 1.75 to 2.50 | . 50 to 1.00 |
| Wakefield | 7.00 to 8.00 | 8.00 to 9.00 | 2.00 to 2.25 | . 50 to 1.00 |
| Walpole. | 5.00 to 6.00 | 7.00 to 8.00 | 1.25 to 2.00 | 1.00 to 1.50 |
| Woodstock | 5.00 to 6.00 |  | 1.75 to 2.00 | .25 to . 50 |
| Webster. | 6.00 to 7.00 | 10.00 to 11.00 | 1.50 to 2.50 | 1.00 |

## FENCE POSTS

## Town

Oak \& Ash

Delivered
8 to 10 cents

Size
5 inch top diameter

## CHRISTMAS TREES

Stumpage
Coos County 20 to 30 cents bundle
High percent. fir, average of three trees per bundle-good quality

## STUMP TO STICK

Town
Allenstown
Groveton.
Keene.
Nashua
Newport
Rochester
Walpole.
Webster.
Woodstock

Softwoods
$\$ 7.00 \mathrm{M}$
5.00 to 6.00 M
7.50 to 9.00 M
7.00 to 9.00 M
10.00 to 11.00 M
8.00 to 10.00 M
8.00 to 11.00 M
7.00 to 8.00 M
4.00 to 6.00 M

Hardwoods
$\$ 9.00$ to 12.50 M 12.00 to 15.00 M 8.00 to 11.00 M
5.00 to 6.00 M

## CUSTOM SAWING

Allenstown

Dublin
\$ 5.50 M 5.00 M


## PRACTICAL HELPS IN MARKETING TIMBER

Many woodland owners, especially farmers, when it comes to selling timber, may find the following suggestions helpful.

Find out from as many sawmills and wood-using industries as possible what prices they offer for various wood products in order that advantage may be taken of the best market. Compare the local prices with those quoted from other sections of the state.

Before selling, inquire from neighbors who have recently disposed of their timber and use their experience as a guide. Ask your County Agent. Failure to do this has resulted in many instances of not getting full value of the product.

Thoroughly investigate all local timber requirements and prices, since in many cases local markets pay better prices than outside markets because of the saving of transportation charges.

Advertise, and secure competition among outside purchasers. The expense will be small and outside buyers will thus learn of chances to bid on timber in competition with local buyers.

Secure bids whenever practical, both by the lump and by log scale measure. A choice is thus offered, and a more profitable form of bid can be accepted.

Consider the responsibility of the prospective purchaser before making the sale in order to avoid slow payment, costly collections and losses.

Prior to making sales, secure at least a fairly good estimate of the amount and value of the material for sale. Persons acquainted with the business of estimating or measuring timber can usually be found in every region.

Market the higher grades of timber. The poorer grades can often be used on the farm to advantage. When there is quality timber to market, sell by grade. For example, select pine logs must be practically clear surfaced and must be reasonably straight and smooth.

Remember that standing timber does not deteriorate rapidly. The owner, therefore, is not always forced to place his product on the market regardless of market conditions.

Use a written timber sale agreement, particularly where the cutting is done by the purchaser.

As an aid to those unfamiliar with such agreements, a sample contract is given, showing the more important provisions that should be included in a contract for the sale of marked trees to be scaled in the log. Substitute clauses are given for use in other kinds of sales. No single form of contract will suit all classes of sales, but owners of woodland timber should have no difficulty in adopting this contract to their use.

## Sample Timber Sale Contract

Agreement entered into on this
day of
between
of
New Hampshire,

hereinafter called the purchaser.
Witnesseth:

Article I. The seller agrees to sell to the purchaser, upon the terms and conditions hereinafter stated, all the living timber marked or designated by the seller and all the merchantable dead timber, standing or down, estimated to be $\qquad$ board feet, more or less, on a certain tract of land situated in the
$\qquad$

Article II. The purchaser agrees to pay the seller the sum of $\qquad$ more or less, as may be determined by the actual scale, at the rate of per thousand board feet for
payable prior to the date of removal of material, in installments of each.

Article III. The purchaser further agrees to cut and remove said timber in strict accordance with the following conditions:

1. Unless an extension of time is granted, all timber shall be cut, paid for, and removed on or before
2. Saw timber shall be scaled by the $\log$ rule, and measured at the
3. The maximum scaling lengths of logs shall be 16 feet; greater lengths shall be scaled as two or more logs. Upon all logs an additional length of 4 inches shall be allowed for trimming. Logs overrunning this allowance shall be scaled not to exceed the next foot in length.
4. No unmarked timber of any kind shall be cut, except
5. Stumps shall be cut so as to cause the least possible waste; stumps of trees up to 16 inches in diameter, not higher than 12 inches above the ground, and those of trees above this size at a distance above the ground not greater than three-fourths of their diameter.
6. All trees shall be utilized in their tops to the lowest possible diameter for commercially salable material.
7. Young trees shall be protected against unnecessary injury; only dead trees and less valuable kinds may be used for construction purposes in connection with lumbering operations.
8. Care shall be exercised at all times by the purchaser and his employees against starting and spreading of fire.

Article IV. It is mutually understood and agreed by and between the parties heretofore mentioned as follows:

1. All timber included in this agreement shall remain the property of the seller until paid for in full.
2. In case of dispute over the terms of this contract, final decision shall rest with a reputable person to be mutually agreed upon by parties to this contract, and in case of further disagreement, with an arbitration board of three persons, one to be selected by each party to this contract and a third to be the State Forester or his chosen representative.

In witness whereof the parties hereto have hereunto set their hands and seal this.

Witnesses:

The following are specimens of clauses that should be substituted in the contract when other methods of sale are used. In lump sum sales, substitute in Article I a descriptive clause, modeled on this one:

All merchantable living trees, except
which measures 12 inches and below in diameter at breast height (a height of $41 / 2$ feet above the ground.)

Such a provision will reserve the basis of a second crop consisting of the more valuable and rapid-growing kinds of trees and remove all of the inferior and slower-growing trees.

In a sale to a diameter limit, the clause should read somewhat as follows:

All merchantable living trees, 12 inches and over, measured breast height above the ground.

The payment clause in lump sum sales should be varied to read something like this:

The sum of................................................................................... said timber, payable prior to the cutting of the material, in installments of dollars each, payable on or before , respectively.

Other clauses which might be included are those requiring that the timber be scaled in the presence of the seller or his authorized agent; that the log lengths shall be varied so as to best utilize the timber; that unmarked trees, if cut, shall be paid for at double the regular price; that tops left in logging shall be left on the tract for the use of the seller (or, if desired, shall be utilized by the purchaser.)
In selling by the lump, the other essential change is to omit the provisions, or part of them referring to scaling, measuring, and unit prices. The total amount to be paid is very important, while the total estimated quantity of timber is optional.

## SUGGESTIONS FOR GRADING LOGS

A wood-using industry in New York state publishes the following information giving grading rules for logs delivered at their mill. While there are a few instances where logs are bought by grade in New Hampshire, there are no generally accepted standards. It would be advantageous to both the industry and the woodland owners to adopt some form of acceptable log grades.

## Grading Rules for Logs Delivered at Our Mill

Prices effective September 1, 1936 and subject to change without notice. All grades and measure to be Doyle Scale.

## STANDARD GRADE HARD MAPLE

Prime Clears. A Prime Clear log must be $16^{\prime}$ long, $18^{\prime \prime}$ and over at the top end, must be straight so that a line stretched from top to butt will not leave the log more than one inch, a true taper, entirely sound at both ends, free from shake, heart checks and defects of any nature. The outside of the log must be entirely free from bumps, knots, burls or any defects of any kind. The red wood in this $\log$ must not exceed $1 / 3$ the diameter of the log. In other words, an $18^{\prime \prime} \log$ could only show $6^{\prime \prime}$ of sound red wood in the center.

Standard No. 1 Logs. A No. $1 \log$ must be $12^{\prime \prime}$ and over in diameter. A log scaling under 100 ft . shall not have more than two knots or burls or bump defects in the log, and these defects must not be over $3^{\prime \prime}$ in diameter. A log scaling from 100 to 200 ft . can have three such defects or the equivalent and logs scaling 200 ft . and over may have four (4) such defects or their equivalent. All No. 1 logs must be sound at both ends and free from heart shake or heart check. They must be cut so straight that a line stretched on the outside of the bark from top to butt on the hollow side of the $\log$ will not leave the $\log$ more than $2^{\prime \prime}$ in any place.

Standard No. 2 Logs. No. 2 logs must be $10^{\prime \prime}$ and over at the top end, and must be practically free from heart shake at either end, and practically sound at both ends. A No. 2 log must be so straight that a line drawn from the small end of the bark to the larger end will not leave the $\log$ more than $3^{\prime \prime}$ at any place. No. 2 logs must be $60 \%$ clear in cuttings 2 ft . long by $1 / 3$ the outside diameter of the log. Defects must be sound or of sound nature.

Standard No. 3 Logs or Culls. In this grade we will accept a reasonable amount of logs as droppings from the No. 2, but they must be of quality that will allow us to manufacture a reasonable amount of lumber from this type of log.

The same grading rules are applied to hard wood logs of other species with some variations.

## WHITE PINE

No. 1 White Pine. Logs shall be $12^{\prime \prime}$ and over at the top end. It shall be so straight that a line drawn from top to butt will not leave the log more than $2^{\prime \prime}$ in the middle of the log. No. 1 Pine logs under $16^{\prime \prime}$ should not have more than one (1) knot that exceeds in size more than $1 / 5$ th of the diameter of the $\log$ in inches. In other words, a $10^{\prime \prime} \log$ should not have more than one (1) knot $2^{\prime \prime}$ in diameter; a $20^{\prime \prime} \log$, not more than one (1) knot $4^{\prime \prime}$ in diameter. Logs $16^{\prime \prime}$ and over in diameter should not have more than two (2) knots or their equivalent, exceeding in size $1 / 5$ th the diameter of the $\log$ in inches. No. 1 logs should be free from red streaks or red rot showing in the end. Should be high quality logs, but excessive small knots are not defects in No. 1 logs.

No. 2 Pine. Logs shall be $10^{\prime \prime}$ and over at the top end, and must be so straight that a line will not leave the $\log$ more than $2^{\prime \prime}$ from top to butt on the hollow side. They may contain any number of knots but they shall not contain more than one (1) knot that exceeds in size $1 / 3$ the diameter of the 10 in inches nor more than four (4) knots that exceed in size $1 / 4$ the size of the $\log$ in inches at the top end.

Special Note: It is expected that all logs will be cut from live, sound timber. Excessive defects and excessive crooks degrade all logs one or more grades. The general character of the logs delivered will have a bearing on the grading. In other words, if logs run of good, smooth character, then some consideration will be given to excessive defects; on the other hand, if the logs are of a scrubby type and generally bad cuts, they will be considered adversely. All logs must be cut at least $3^{\prime \prime}$ long, and all logs must be cut $8,10,12,14$ and $16^{\prime}$ long, unless otherwise ordered.

We will allow 35 per M extra on all prices when logs are delivered in solid truckloads of one species such as all hemlock, all white pine, all soft maple and the like.

All grades and measure are to be Doyle Scale.
COMPARISON OF LOG RULES

| Top diameter inside bark (inches) | International $1 / 4$ kerf | Board foot values for 16 -foot logs for log rules and in percentage of International* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Scribner |  | Scribner $\underset{\mathrm{C}}{\text { Decimal }}$ |  | Spaulding |  | Doyle |  | $\begin{aligned} & \text { Doyle } \\ & \text { and } \\ & \text { Scribner } \end{aligned}$ |  | Holland or Maine |  | Blodgett or New Hampshie |  | Humphrey or Vermont |  |
|  | Bd. | $B d$. | Per | $B d$. | Per | $B d$. | Per | Bd. | Per | $B d$. | Per | $B d$. | Per | $B d$. | Per | $B d$. | Per |
|  | ft. | ft. | cent | $f t$. | cent | ft. | cent | ft. | cent | ft. | cent | ft. | cent | $f t$. | cent | $f t$. | cent |
| 4 | 5 | (10) | 200 | (10) | 200 |  |  |  |  |  |  | (3) | 60 | 13 | 260 | 11 | 220 |
| 5 | 10 | (13) | 130 | (10) | 100 | $\ldots$ |  | 1 | 10 | 1 | 10 | (11) | 110 | 19 | 190 | 16 | 160 |
| 6 | 20 | 18 | 90 | 20 | 100 | $\ldots$ |  | 4 | 20 | 4 | 20 | 20 | 100 | 26 | 130 | 24 | 120 |
| 7 | 30 | 24 | 80 | 30 | 100 | .... | $\cdots$ | 9 | 30 | 9 | 30 | 31 | 103 | 35 | 117 | 32 | 107 |
| 8 | 40 | 32 | 80 | 30 | 75 |  |  | 16 | 40 | 16 | 40 | 44 | 110 | 43 | 108 | 43 | 108 |
| 9 | 50 | 42 | 84 | 40 | 80 |  |  | 25 | 50 | 25 | 50 | 52 | 104 | 54 | 108 | 53 | 106 |
| 10 | 65 | 54 | 83 | 60 | 92 | 50 | 77 | 36 | 55 | 36 | 55 | 68 | 105 | 66 | 102 | 67 | 103 |
| 11 | 80 | 64 | 80 | 70 | 88 | 63 | 79 | 49 | 61 | 49 | 61 | 83 | 104 | 78 | 98 | 80 | 100 |
| 12 | 95 | 79 | 83 | 80 | 84 | 77 | 81 | 64 | 67 | 64 | 67 | 105 | 111 | 92 | 97 | 96 | 101 |
| 13 | 115 | 97 | 84 | 100 | 87 | 94 | 82 | 81 | 70 | 81 | 70 | 120 | 104 | 106 | 92 | 112 | 97 |
| 14 | 135 | 114 | 84 | 110 | 81 | 114 | 84 | 100 | 74 | 100 | 74 | 142 | 105 | 123 | 91 | 131 | 97 |
| 15 | 160 | 142 | 89 | 140 | 88 | 137 | 86 | 121 | 76 | 121 | 76 | 161 | 101 | 139 | 87 | 149 | 93 |
| 16 | 180 | 159 | 88 | 160 | 89 | 161 | 89 | 144 | 80 | 144 | 80 | 179 | 99 | 157 | 87 | 171 | 95 |
| 17 | 205 | 185 | 90 | 180 | 88 | 188 | 92 | 169 | 82 | 169 | 82 | 205 | 100 | 176 | 86 | 192 | 94 |
| 18 | 230 | 213 | 93 | 210 | 91 | 216 | 94 | 196 | 85 | 196 | 85 | 232 | 101 | 197 | 86 | 216 | 94 |
| 19 | 260 | 240 | 92 | 240 | 92 | 245 | 94 | 225 | 87 | 225 | 87 | 271 | 104 | 217 | 83 | 240 | 92 |
| 20 | 290 | 280 | 97 | 280 | 97 | 276 | 95 | 256 | 88 | 256 | 88 | 302 | 104 | 240 | 83 | 267 | 92 |
| 21 | 320 | 304 | 95 | 300 | 94 | 308 | 96 | 289 | 90 | 289 | 90 | 336 | 105 | 262 | 82 | 293 | 92 |
| 22 | 355 | 334 | 94 | 3.30 | 93 | 341 | 96 | 324 | 91 | 324 | 91 | 363 | 102 | 287 | 81 | 323 | 91 |

COMPARISON OF LOG RULES-Continued

| Top diameter inside bark (inches) | International $1 / 4$ kerf | Board foot values for 16-foot logs for log rules and in percentage of International* |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Scribner |  | Scribner Decimal C |  | Spaulding |  | Doyle |  | $\begin{gathered} \text { Doyle } \\ \text { and } \\ \text { Scribner } \end{gathered}$ |  | Holland $\stackrel{\text { or }}{\text { Maine }}$ |  | Blodgett or New Hampshire |  | Humphery or Vermont |  |
|  | $B d$. | $B d$. | Per | $B d$. | Per | $B d$. | Per | $B d$. | Per | $B d$. | Per | $B d$. | Per | $B d$. | Per | $B d$. | Per |
|  | ft. | ft. | cent | $f t$. | cent | $f t$. | cent | $f t$. | cent | ft. | cent | $f t$. | cent | ft. | cent | ft. | cent |
| 23 |  |  | 97 | 380 | 97 | 376 | 96 | 361 | 93 | 361 | 93 | 401 | 103 | 313 | 80 | 352 | 90 |
| 24 | 425 | 404 | 95 | 400 | 94 | 412 | 97 | 400 | 94 | 400 | 94 | 439 | 103 | 339 | 80 | 384 | 90 |
| 25 | 460 | 459 | 100 | 460 | 100 | 449 | 98 | 441 | 96 | 441 | 96 | 477 | 104 | 367 | 80 | 416 | 90 |
| 26 | 500 | 500 | 100 | 500 | 100 | 488 | 98 | 484 | 97 | 484 | 97 | 507 | 101 | 397 | 79 | 451 | 90 |
| 27 | 540 | 548 | 101 | 550 | 102 | 528 | 98 | 529 | 98 | 530 | 98 | 546 | 101 | 426 | 79 | 485 | 90 |
| 28 | 585 | 582 | 99 | 580 | 99 | 569 | 97 | 576 | 98 | 582 | 99 | 614 | 105 | 457 | 78 | 523 | 89 |
| 29 | 630 | 609 | 97 | 610 | 97 | 612 | 97 | 625 | 99 | 609 | 97 | 657 | 104 | 489 | 78 | 560 | 89 |
| 30 | 675 | 657 | 97 | 660 | 98 | 656 | 97 | 676 | 100 | 657 | 97 | 706 | 105 | 514 | 76 | 600 | 89 |
| 31 | 720 | 710 | 99 | 710 | 99 | 701 | 97 | 728 | 101 | 710 | 99 | 755 | 105 | 557 | 77 | 640 | 89 |
| 32 | 770 | 736 | 96 | 740 | 96 | 748 | 97 | 784 | 102 | 736 | 96 | 792 | 103 | 592 | 77 | 683 | 89 |
| 33 | 820 | 784 | 96 | 780 | 95 | 796 | 97 | 841 | 103 | 784 | 96 | 848 | 103 | 628 | 77 | 725 | 88 |
| 34 | 875 | 800 | 91. | 800 | 91 | 845 | 97 | 900 | 103 | 800 | 91 | 900 | 103 | 666 | 76 | 771 | 88 |
| 35 | 925 | 87€ | 95 | 880 | 95 | 897 | 97 | 961 | 104 | 876 | 95 | 949 | 103 | 704 | 76 | 816 | 88 |
| 36 | 980 | 923 | 94 | 920 | 94 | 950 | 97 | 1024 | 104 | 923 | 94 | 1026 | 105 | 744 | 76 | 864 | 88 |
| 37 | 1040 | 1029 | 99 | 1030 | 99 | 1006 | 97 | 1089 | 105 | 1029 | 99 | 1089 | 105 | 785 | 75 | 912 | 88 |
| 38 | 1095 | 1068 | 98 | 1070 | 98 | 1064 | 97 | 1156 | 106 | 1068 | 98 | 1135 | 104 | 827 | 76 | 963 | 88 |
| 39 | 1155 | 1120 | 97 | 1120 | 97 | 1124 | 97 | 1225 | 106 | 1120 | 97 | 1209 | 105 | 870 | 75 | 1013 | 88 |
| 40 | 1220 | 1204 | 99 | 1200 | 98 | 1185 | 97 | 1296 | 106 | 1204 | 99 | 1261 | 103 | 914 | 75 | 1067 | 87 |

*Reference U. S. D. A. Miscellaneous Publication No. 225, Farmers Bulletin No. 1210.

