



# Marketing Kansas Timber

*This publication is designed to assist woodland owners in marketing their timber products. Landowners wanting to manage their woodlands for future timber crops and related benefits, such as wildlife habitat, are encouraged to seek additional assistance of a professional forester. A District Forester may be contacted through county K-State Research and Extension offices, Conservation District offices, or from the Kansas Forest Service Web site [www.kansasforests.org](http://www.kansasforests.org).*

## Selecting Trees to Sell

Periodic selective harvests are used to thin woodlands to maintain optimum tree growth. This is done by removing mature and low-grade trees first.

To decide which trees to harvest, make a visual inventory of the woodland. Take into account tree size, location, condition, and vigor. Recommended minimum harvest size is usually 16 inches in diameter measured 4½ feet above the ground (d.b.h.). However, healthy trees larger than 16 inches growing in an uncrowded situation may be increasing in value at such high rates that they should be held for future harvests. There also may be trees smaller than 16-inch diameter that should be cut; those showing

slow growth, indicated by flat scaly bark, low vigor, large numbers of dead branches, defects, or broken tops.

Each tree selected for sale should be clearly marked with paint at eye level on the trunk to eliminate confu-

sion. In addition, a spot of paint on the stump at ground level will leave a record of proper harvest. The sale boundary should be clearly identified to eliminate accidental trespass and confine the harvest to a specific management unit. It may be neces-

**Table 1: Log Table — Doyle Rule**

Length in feet											
6	7	8	9	10	*Diam.	11	12	13	14	15	16
24	28	32	36	40	<b>12</b>	44	48	52	56	60	64
30	35	40	45	50	<b>13</b>	55	61	66	71	76	81
38	44	50	56	62	<b>14</b>	69	75	81	88	94	100
45	53	60	68	75	<b>15</b>	83	91	98	106	113	121
54	63	72	81	90	<b>16</b>	99	108	117	126	135	144
63	74	84	95	106	<b>17</b>	116	127	137	148	158	169
73	85	98	110	122	<b>18</b>	135	147	159	171	183	196
84	98	112	127	141	<b>19</b>	155	169	183	197	211	225
96	112	128	144	160	<b>20</b>	176	192	208	224	240	256
108	126	144	162	181	<b>21</b>	199	217	235	253	271	289
121	142	162	182	202	<b>22</b>	223	243	263	283	303	324
135	156	180	203	226	<b>23</b>	248	271	293	313	336	359
150	175	200	225	250	<b>24</b>	275	300	325	350	375	400
165	193	220	248	276	<b>25</b>	303	331	358	386	413	441
181	212	242	272	302	<b>26</b>	334	363	393	423	453	484
198	231	264	297	330	<b>27</b>	364	397	430	463	496	530
216	252	288	324	360	<b>28</b>	396	432	468	504	540	576
235	273	312	352	391	<b>29</b>	430	469	508	547	586	625
253	295	338	380	422	<b>30</b>	464	507	549	591	633	676
273	319	364	410	456	<b>31</b>	502	547	592	638	683	729
294	343	392	441	490	<b>32</b>	539	588	637	686	735	784
315	368	420	473	526	<b>33</b>	578	631	684	736	789	841
337	394	450	506	562	<b>34</b>	619	675	731	787	844	900
360	420	480	540	601	<b>35</b>	661	721	781	841	901	961
384	448	512	576	640	<b>36</b>	704	768	832	896	960	1024
408	476	544	613	681	<b>37</b>	749	817	885	953	1021	1089
433	505	578	650	723	<b>38</b>	795	867	939	1011	1083	1156
459	536	612	689	765	<b>39</b>	841	919	995	1072	1149	1225
486	566	648	729	810	<b>40</b>	891	972	1053	1134	1215	1296

\*Diameter inside bark (d.i.b), small end of log.

sary to mark sale boundary lines with paint or flagging.

### Determining Volume and Value

Trees are sold by the board foot (one board foot is equal to a board 12 inches long by 12 inches wide by 1 inch thick). Estimating the number of board feet in a standing tree requires two measurements: log diameter and length. Calculating the board feet of lumber in standing trees requires judgement, training, and practice.

First, measure tree diameter at 4½ feet above ground (about breast high). Diameter can be determined by measuring around the trunk with a standard tape measure and dividing by 3.14. Next, estimate the length of each log using natural “stops” such as limbs, knots and bends. Estimate log diameter inside the bark (d.i.b.) at the small end of each log in the tree. Due to taper and bark thickness there is approximately a 2- to 3-inch reduction in inside bark diameter at the small end of the log from the breast high measurement for every 8 to 10 feet of log length for most species.

Include all logs of the main trunk in each tree with a minimum length of 6 feet and a minimum 12 inch d.i.b. Using the log scale in Table 1, determine the board foot volume of each log by cross-referencing log length and d.i.b. For example, an 8-foot log with an 18-inch d.i.b. contains 98 board feet.

### Marketing Guidelines

Timber in Kansas may be marketed as sawlogs, veneer wood, or other products. Value of timber depends on species, size, quality, and available markets. In most cases, trees less than 16 inches in diameter at breast height should not be harvested unless they are deformed, very defective, or slow growing.

Different species vary greatly in value. For example, walnut is much more valuable than cottonwood. Larger trees are commonly more valuable than smaller trees. Sound trees with few defects are valued higher than lower-quality trees. Availability of and distance to markets and transportation costs also

have a bearing on marketability and value. Trees and logs marketed for speciality products are commonly more valuable than sawlog products.

To figure log value, grade (or quality) must be determined. The three primary log grades for standing trees — prime, select, and common — are described in Log Specifications.

### Walnut

*Marketability:* Timber buyers commonly seek out individual high-quality veneer (prime) trees. It usually requires at least 10 trees to encourage loggers to make bids.

*Harvest Size:* Sound, straight trees with few defects and vigorous crowns usually do not reach financial maturity until reaching 24- to 28-inches d.b.h. However, risk of fire, lightning, or theft could reduce this size. Lower-quality trees reach financial maturity much sooner than high-quality trees. Low-quality trees should be harvested to make room for high-quality trees.

*Uses:* Veneer, lumber, gun stocks, furniture, novelties, firewood, and nuts.

### Bur Oak

*Marketability:* Buyers seldom bid or buy fewer than 15 to 20 trees in close proximity. Veneer grade bur oak is commonly purchased for both domestic and export markets, but markets are variable. Because of its long-lived nature bur oak can remain in the woods for many years if present markets are not available.

*Harvest Size:* Sound, straight trees with few defects do not reach financial maturity until 24- to 28-inches d.b.h. Trees with common grade logs reach maturity at much smaller diameters.

*Uses:* Veneer, lumber, furniture, railroad ties, planking, firewood, pallets, and boxes.

### Log Specifications

#### Prime

Minimum 8-foot length and 14-inch d.i.b. (18-inch d.i.b. — oak).

Free of all defects — four clear sides or faces.\*

Value: Based on number of clear sides.

#### Select

Minimum 8-foot length and 14-inch d.i.b.

Defects on one side only — 3 clear sides or faces.

Value: Based on number of clear sides.

#### Common

Minimum 6-foot length and 12-inch d.i.b.

Defects on all sides allowed.

Value: Based on number of clear sides.

\*Common defects include wire, metal, knots, limbs, scars and excessive bends.

Note: When cutting logs, add 2 to 4 inches to log length to allow for manufacturing at the mill.

**Figure 1: Example Solicitation of Bid Form**

**Solicitation of Bid on Standing Timber**

You are invited to bid on \_\_\_\_\_  
(number of trees)

designated for cutting by \_\_\_\_\_  
(blue marks or blue numbers)

on the trunk of each tree. Such timber is on the property of \_\_\_\_\_  
(your name and address)

\_\_\_\_\_ located \_\_\_\_\_  
(miles each way from nearest town)

and described legally as Section \_\_\_\_\_, Township \_\_\_\_\_, Range \_\_\_\_\_

For further directions on how to see this timber, contact  
\_\_\_\_\_  
(name, address, and telephone number)

Bid will be made in a single lump-sum for a written contract sale.

After bid is completed, place in envelope marked "Timber Bids" on outside, and mail or present to  
\_\_\_\_\_  
(name and address)

before \_\_\_\_\_ (a.m., p.m.) on \_\_\_\_\_  
(time) (Date — day, month and year)

Bids will be opened at \_\_\_\_\_  
(name and address)

on the date and time specified above.

Unsuccessful bidders will be notified. The successful bidder will be notified and have one week from the date of notification to present a check for the lump-sum bid and sign a contract.

The owner reserves the right to reject any or all bids.  
Date: \_\_\_\_\_

Amount of Bid: \_\_\_\_\_ Bidder: \_\_\_\_\_

Company: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

**Figure 2. Example Timber Sale Agreement Form (This form is not intended to be a substitute for legal advice. An attorney should be consulted prior to entering into any legal agreement.)**

\_\_\_\_\_ of \_\_\_\_\_ hereinafter  
(Name of Purchaser) (Address)

Called the Purchaser, agrees to purchase from \_\_\_\_\_  
(Name of Seller)

of \_\_\_\_\_ hereinafter called the Seller, the  
(Address)

designated timber specified below: WITNESSETH:

**ARTICLE I.** The seller hereby agrees to sell to the Purchaser, subject to the terms listed below, all the timber specified below, on a certain tract of land owned by the Seller, located in Sec. \_\_\_\_\_, Twp. \_\_\_\_\_, Range \_\_\_\_\_. County of \_\_\_\_\_, State of \_\_\_\_\_, located on \_\_\_\_\_ acres, more or less.

**ARTICLE II.** The Purchaser agrees:

- I. To pay \$\_\_\_\_\_ for \_\_\_\_\_ (number of trees).
- II. To make said payment in a lump sum before cutting begins.
- III. To cut only those trees designated for cutting by blue paint on trunk.

(State amount and time of payments, whether by log scale, lump sum, etc. Specify tree species, stump height, diameter, number, etc.)

**ARTICLE III.** The Purchaser further agrees to cut and remove said timber in strict accordance with the following conditions:

1. To waive all claim to the above described trees unless they are cut and removed on or before \_\_\_\_\_ (date, at least 90 days).
2. To hold damage to young growth and other trees to a minimum.
3. To repair logging damage, beyond ordinary wear, to fences, roads, etc.
4. To remove logging debris from creeks, rivers, and fields.
5. To hold the seller harmless from claims for injury to persons or property arising out of purchaser's acts in performing this agreement.

**ARTICLE IV.** The Seller agrees to the following conditions:

1. To guarantee title to the forest products covered by this agreement and to defend it against all claims.
2. To grant necessary ways of entrance and exit to sale area.

**ARTICLE V.** It is mutually understood and agreed by and between both parties hereto as follows:

1. All timber included in this agreement shall remain the property of the Seller until paid for in full by the Purchaser.
2. An extension of this contract may be arranged if conditions warrant such an extension, and it is agreeable to both parties.

Signed in duplicate this \_\_\_\_\_ day of \_\_\_\_\_, 20 \_\_\_\_\_.

\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
(Purchaser)

\_\_\_\_\_  
(Witness)

\_\_\_\_\_  
(Seller)

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## Other Hardwoods

*Marketability:* Buyers actively seek out good, mixed-hardwood timber stands. Mixed-hardwood species fluctuate in value and are subject to seasonal and long-term market variability. It commonly requires a minimum of 25 to 50 sound trees to warrant a timber sale.

### Marketable Species:

- Hackberry
- Cottonwood
- Ash
- Elm
- Pecan
- Basswood
- Mulberry
- Oaks
- Kentucky Coffeetree
- Sycamore
- Maple
- Hickory
- Osage-orange
- Honeylocust
- Boxelder

*Harvest Size:* Most hardwood species reach financial maturity at 18- to 22-d.b.h. inches. However, firewood and post markets are quite useful in thinning smaller, low-value trees.

*Uses:* Lumber, pallets, boxes, furniture, posts, and firewood.

## Marketing Procedure

The recommended procedure for selling trees is competitive bid sale. Through this procedure, timber buyers compete with one another to purchase the trees marked for sale.

A fair market price will be received for the trees based on current timber markets. There are three steps in selling trees by competitive bid. The first step is to contact prospective buyers. A list of timber buyers is available at county K-State Research and Extension offices, Conservation District offices, at the Kansas Forest Service Web site, or from your district forester. Inform the buyers of the following:

- Number of trees for sale.
- Location from nearest town.
- Name, address, and telephone number of contact person.
- Time and location of bid opening (allow 30 days after notification).
- Terms of sale (recommend lump sum payment before cutting begins).

An example solicitation of bid form is found in Figure 1.

The second step is acceptance or rejection of timber bids. Bids should be opened only at the specified time and location. Some buyers may want to be present at the bid opening. If a bid is accepted, the bidder should be notified immediately to make arrangements to negotiate a timber sale agreement. Unsuccessful bidders also should be notified. Remember, you have the right to accept or reject any or all bids.

The final step is determining the terms of the sale and signing the timber sale agreement. This agreement is extremely important because it is a contract that protects both the buyer and seller. Figure 2 shows an

example of a timber sale agreement. A basic agreement should include:

- Terms of payment (lump sum prior to cutting is recommended).
- Time allowed for completion of harvest (3 to 6 months minimum).
- Liability for damage to persons or property.
- Guarantees of entrance, right-of-way and title of property.

It is advisable to contact an attorney for legal advice in structuring an agreement that protects your interests.

The owner should periodically check the progress of the harvesting operation to make certain the agreement is being followed.

To request services of a forester, contact your local K-State Research and Extension office, county conservation district office, Natural Resources Conservation Service office or:

Kansas Forest Service  
2610 Claflin Road  
Manhattan, KS 66502-2798  
(785) 532-3300  
[www.kansasforests.org](http://www.kansasforests.org)

## Related Publications

- *Improving Black Walnut Stands*, L-718
- *Woodland Management for Farms and Ranches*, C-672
- *Forestry for Wildlife*, MF-807
- *Improving Your Woodland for Timber Production*, L-725
- *Planting Black Walnut for Timber*, L-731
- *Kansas Forest Service - Serving Your Needs*, L-847



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