

ALEXANDER HUEMER

# Lignum





# Introduction



Starting with a limited amount of resources and workers, you set out to run your lumber mill as efficiently as possible. Savvy investments and proper planning will ensure that your mill will be the most profitable. Be cautious, however, for competition is fierce! You will need to secure the best cutting areas, make use of limited contract workers, and continually update and replace your equipment. Your competitors are not the only thing to worry about as you will also need to store enough firewood and food to survive the harsh winters.

## OVERVIEW

There are 2 years in the game with **each season** representing a **round**. This means there are a total of **8 rounds** in the game. The seasons spring, summer, and fall are played in the same way with only winter being played differently. **After the second winter** (at the end of the second year), the game ends and the player with the most money wins.

## GAME COMPONENTS

Game board



- |                                   |                                     |   |   |
|-----------------------------------|-------------------------------------|---|---|
| <b>a</b> phase track              | <b>f</b> bearer location            | <b>k</b> winter card – 1 <sup>st</sup> year | <b>p</b> winter card – 2 <sup>nd</sup> year |
| <b>b</b> starting player order    | <b>g</b> cutting area               | <b>l</b> planned work location              | <b>q</b> hut construction info              |
| <b>c</b> forest clearing          | <b>h</b> market                     | <b>m</b> woodcutter location                |   |
| <b>d</b> locations (acquisitions) | <b>i</b> planned work planning area | <b>n</b> tasks location                     |   |
| <b>e</b> annual course of events  | <b>j</b> fodder location            | <b>o</b> sawyer location                    |   |





## Player boards

### sawmill board

(in the player colors: red, orange, white, blue)

**a** fodder storage

**b** worker area

**c** hut effects

**d** food storage

**e** river

**f** equipment and craftwork areas

**g** price info

**h** firewood storage (for heating)

## Markers

4x

player turn order disks

2x

beige octagons  
– phase marker  
and season marker

## Cards

4x

loan cards

8x

winter cards

19x

placement cards

10x

planned  
work  
cards

19x

task cards

## Tiles

4x

woodpile tiles

(in the  
player colors:  
red, orange,  
white, blue)

## Tokens

77x

equipment tokens, including 18x craftwork

10x wagon

2x X-marker

8x amount marker

1x dollar coin

18x saw

12x raft

6x sledge

2x food

4x board

4x shingle

4x stake

4x reed bundle

2x joker

24x

cutting area token with foreman

(6 tokens (1-6) each  
in the player colors:  
red, orange, white, blue)

80x

dollar coins (total value 275)

10 x

25 x

20 x

25 x

24x

planned work tokens

(6 tokens (2x each number 1-3) in  
each of the player colors:  
red, orange, white, blue)

## Pawns

16x

brown woodcutters

4x

mill workers

(in the player colors:  
red, orange, white, blue)

4x

foremen

(in the player colors:  
red, orange, white, blue)

5x

gray sawyers

10x

green bearers

## Raw Materials

12x

brown  
softwood disks

25x

brown milled  
softwood logs

10x

black  
hardwood disks

10x

black milled  
hardwood logs

28x

beige  
firewood disks

45x

beige milled  
firewood logs

40x

green food cubes

8x

yellow  
wheat fodder

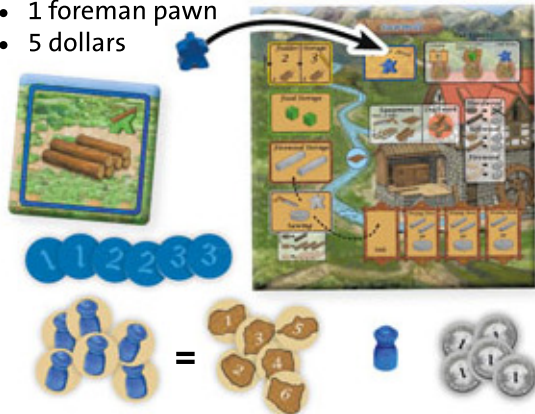
The game is explained for 4 players (Harold, Nicole, Victoria, and John).  
The rules for a 2-player and 3-player game are detailed on page 17.



# PREPARATION

## 1 Every player receives in his color:

- 1 sawmill board
- 1 mill worker (in the worker area)
- 1 woodpile tile
- 6 planned work tokens
- 6 cutting area tokens (on back: 1-6)
- 1 foreman pawn
- 5 dollars



## 2 Place the game board in the middle of the table.

Place the **octagons on position 1** (cutting phase) of the phase track (next to spring/summer/fall) **and on the 1<sup>st</sup> green area** (spring, 1<sup>st</sup> year).



Place one octagon as phase marker on the position "1. cutting".



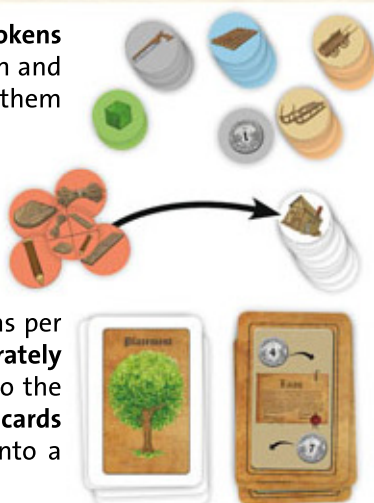
Place the other octagon as season marker on the green area "spring" under "1<sup>st</sup> year".

Place the **various game materials** (food, firewood, softwood, milled softwood, hardwood, milled hardwood, fodder, coins) into a **general supply** within reach of all the players next to the game board.

## 3 Separate the **equipment tokens** (food, saw, raft, sledge, wagon and the dollar coin) by type and place them **face up** next to the game board.

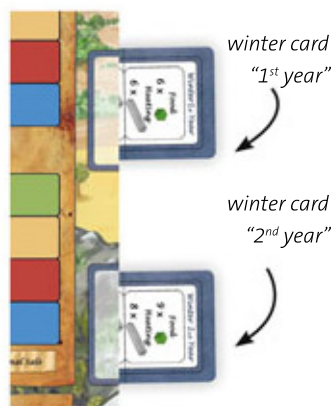
Shuffle the **18 craftwork tokens** and put them face down into a pile next to that.

Separate the various **cards** by type (as per card back). Then shuffle them **separately** and put **each deck face down** next to the game board (exception: put the **loan cards** each with the "4/7 side" **face up** into a deck).



## 4 Separate and shuffle the **winter cards** into **1<sup>st</sup> year** and **2<sup>nd</sup> year** decks. Select **one card** from each deck.

Push one half of each card under the marked positions of the game board so that **only one half is visible** for each card. The information that is now visible applies to the first and second game years accordingly.



## 5 Shuffle the **19 task cards** and place them face down into a deck below the Tasks location on the supply path. Draw and lay out a number of cards **equal to the number of players**.

Shuffle the **10 planned work (PW) cards** and place them face down into a deck beside the PW location. Draw and lay out a number of cards **equal to the number of players plus 2**. Return the remaining PW cards to the game box.



Example: With 3 players 3 task cards are revealed and placed next to the deck.

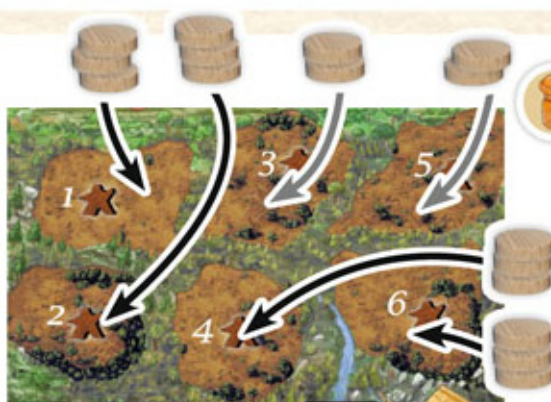


Example: With 2 players lay out 4 PW cards.

## 6 Place **3 firewood** each on any 4 cutting areas.

Place **2 firewood** each on the remaining 2 cutting areas.

Next, each player places **one of their cutting area tokens** (number on back is not relevant now) on an area with 3 firewood. Thus every player can get 3 wood in the first round.



Example: 3 firewood are each placed in the areas 1, 2, 4, 6. 2 firewood are placed in the remaining areas (3 and 5).

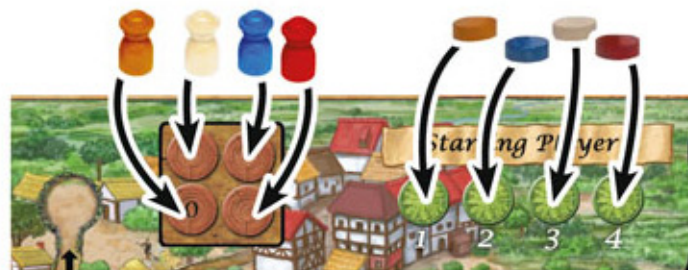


Example: Every player places one of their tokens in a free area with 3 firewood.



- 6** The player who last visited a forest puts their **starting player marker on position 1** of the starting player order track of the game board. Going around clockwise, the other players place their markers on the following positions. Then players place their **foreman pawns on location "0"** of the supply path.

Example.: **Harold** last visited a forest so he becomes the starting player. He places his starting player marker on position 1 of the starting player order track. **Nicole** is sitting left of him so she places her marker on position 2, then comes her left neighbor, **John**, then his left neighbor, **Victoria**.



## PLAY IN DETAIL

### Order of play in each season (except winter):

The following steps are played in this order in each round:

- 1 fill up supply path
- 2 mark wood to be cut  
— reveal food supplies (starting 2nd round)
- 3 select cutting area (starting 2nd round)
- 4 travel along supply path
- 5 wood work phases  
(see phase track "spring/summer/fall")
- 6 determine player order

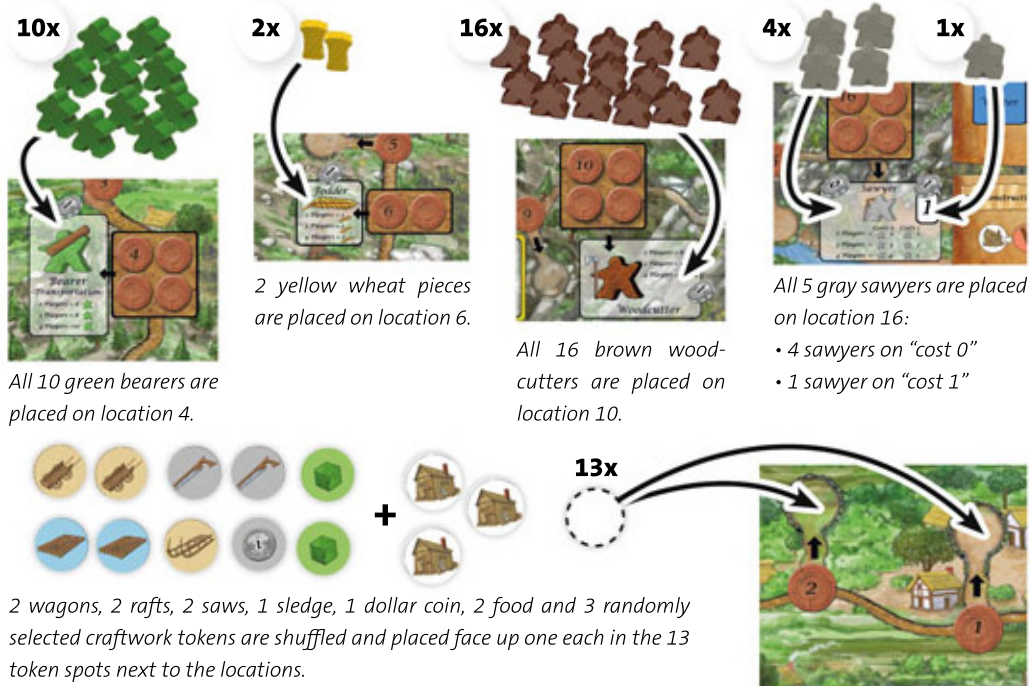
### 1 Fill up supply path

The supply path consists of 20 locations and the final forest clearing (A-D).

Place the worker and fodder pieces on the **locations 4, 6, 10 and 16** accordingly (as in the image to right).

Place **1 equipment token** from the following selection of 13 tokens **on each of the remaining 13 locations** of the supply path:

Take **10 equipment tokens** (as in the image to right) and **3 craftwork tokens** from the supply. Then turn them face down, shuffle them, and then randomly place them face up on the locations.



Draw **task cards** to refill the cards that were taken in the previous round.

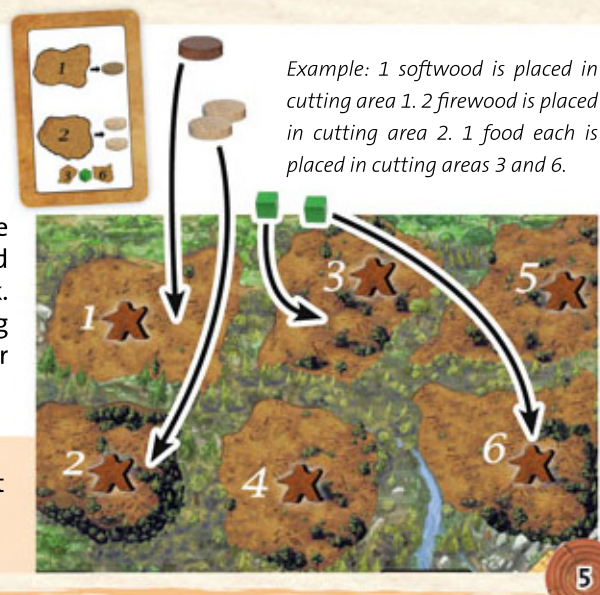
### 2 Mark wood to be cut – gather food

Replaced by game preparation in the very first round (spring/1<sup>st</sup> year)!

#### Starting with the 2<sup>nd</sup> round (summer/1<sup>st</sup> year):

Due to woodcutting in the previous round there are fewer wood places in the cutting areas. Additional wood is revealed and added to the board. Also, food supplies are now revealed. Draw and reveal **3 placement cards** from the deck. Place wood and food pieces as indicated on these cards in the shown cutting areas. This is not a separate move but belongs to the general preparation for this round.

**IMPORTANT!** After this, place **1 additional firewood** in each cutting area that has **no wood**.





### 3 Select cutting area

#### Starting with the 2<sup>nd</sup> round (summer/1<sup>st</sup> year):

Players must now **choose a cutting area**. For this, they use the cutting area tokens with the foreman in their color (areas 1-6 on back).

Each player takes his **cutting area tokens** and **secretly** selects the token with the number of the area in which he wishes to cut wood this round.

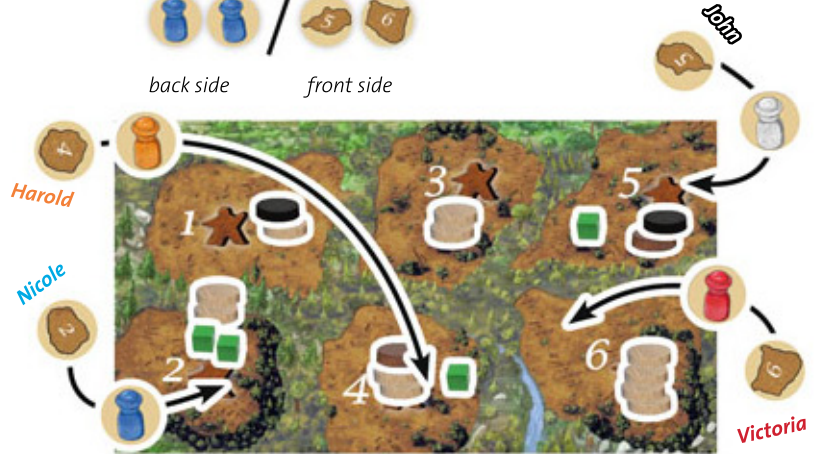
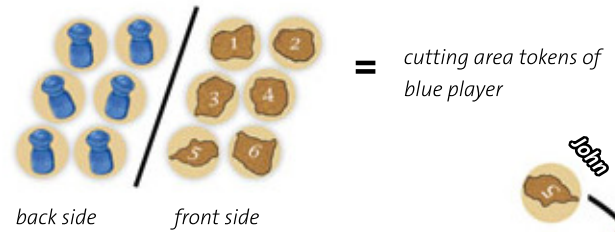
He places this token face down (foreman side up) in front of himself. When all players have done this, then all tokens are revealed.

Now every player places his token in the selected cutting area. It can happen that 2 or more players select the same area.

Every player who is alone in a cutting area may immediately take the **entire supply of food** in his selected area and place it in the food storage area of his mill.

Food supplies are always **distributed evenly**. Remaining supplies stay in the cutting area. If distribution is not possible, then all pieces that cannot be distributed remain in the cutting area.

Woodcutting in an area with another player is explained in detail under “woodcutting” of the wood work chapter.



Example: **Nicole** has selected cutting area 2, **Harold** cutting area 4, **Victoria** cutting area 6 and **John** cutting area 5.

**Nicole** gets 2 food and **Harold** gets 1 food, **Victoria** gets none and **John** gets 1 food.



Example: There are exactly 2 food pieces. **Nicole** and **Harold** each receive 1 food.



Example: There is only 1 food available. **Nicole** and **Harold** each get nothing. The food remains in the cutting area.



Example: There are 3 food pieces. **Nicole** and **Harold** each get 1 food, the third one stays in the cutting area.

### 4 Travel along supply path

While traveling along the supply path to the clearing in the forest, you have to acquire the equipment and workers you need in order to finish the subsequent wood work as efficiently as possible.

Each player moves his foreman pawn **in player order (as per the starting player order track)** starting from location 0 along the supply path. Every player may move onto **any location** along the path. This means players may **skip** locations. Most acquisitions are **free** and can simply be taken.



**IMPORTANT!** You may **never** move a foreman **backwards**! Once you skip a location you cannot activate that location and get its acquisitions anymore.

These are the rules by which you must move:

- Again: you may **never** move **backwards**.
- You **must** move (you may not stay nor pass).
- There may only be **one player** (foreman pawn) per location. **Exception:** locations 4, 8, 10, 13, 16 and 19 – there is room for 4 players here each; location 6 – there is room for 2 players here
- A player may only move to a location where he will **activate the according action**.



**Bearers** (location 4), **fodder** (location 6) and **woodcutters** (location 10) must be paid immediately (this is indicated by the dollar coin image next to the location).



**1:1**  
location 4:  
buy bearers for  
1 dollar each  
(unlimited)



**1:1**  
location 6: buy 1  
fodder for 1 dollar  
(maximum 1 per  
player)



**1:1**  
location 10: buy woodcutters for 1 dollar  
each (maximum is number of wood  
pieces in player's selected cutting area)

**Sawyers** (location 16) are a special case. Every player gets **one sawyer for free** in every round (if he activates that location). When a player arrives here, he takes his sawyer from the "price 0" area and does not pay anything for that. The sawyer from the "price 1" area can be hired **in addition** to this. The player must pay 1 dollar for this — the other players then do not get the opportunity to hire an additional sawyer this round.



location 16: first sawyer  
per player is free;  
1 additional sawyer for  
1 dollar (maximum 1x)



At the **market** (location 19), players may **purchase the saws and food** they need or **sell things**. They may purchase and sell as many things as they wish.



**Joker tokens** can be used like any craftwork token.

**Please note:** 3 different craftwork tokens can be used to construct a hut (for details see "Hut Construction", page 15).

#### Purchases:

- 1 saw = 1 dollar (**please note:** maximum of 4 saws allowed per mill)
- 1 food = 1 dollar

#### Selling (craftwork tokens):

- 2 identical craftwork tokens = 2 dollars
- 3 identical craftwork tokens = 4 dollars
- 4 identical craftwork tokens = 6 dollars

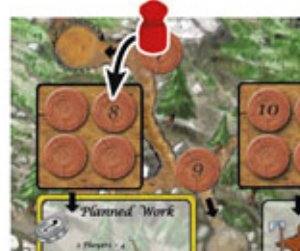
**Tasks** may be purchased by moving onto **location 13**. The player may take **one** face up task card by **paying 1 dollar**. He places this card next to his sawmill pad. **Every player** may acquire **only one** task per round.

Example: **Nicole** moves her pawn to location 13, pays 1 dollar and takes a task of her choice. The laid out cards are filled up to 3 again at the start of the next round (season).



#### Planned Work

By moving to **location 8**, you are able to plan **one** of the laid out PW cards. To do this you take a **pair of tokens with the same number** (e.g. both 2's) and place **one of them on the desired planned work card**. Since a player may never immediately use the advantage of a planned work, but must plan it for a coming round (according to the number on the token in 1, 2 or 3 seasons), he must place the **second token of the pair on the selected season** (see example on page 8).



PW is planned for the  
next season (round)

PW is planned in two  
seasons (rounds)

PW is planned in three  
seasons (rounds)

#### IMPORTANT! Other things to note:

- **Every player** may only plan **one PW** per round.
- **Multiple players** may plan the **same PW** over the course of the entire game.
- It is also allowed for a player to plan the **same PW 2 or 3 times**.
- A PW may **only be executed during the season (round) it was planned for**.  
If a player has not made the necessary preparations by then, then the **PW is lost**.

**Not all PW** may be planned for the **winter round** (since it's special)!

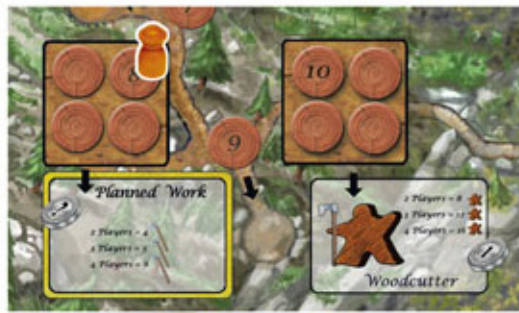
The seasons in which PW may be executed are indicated at the bottom of the card.



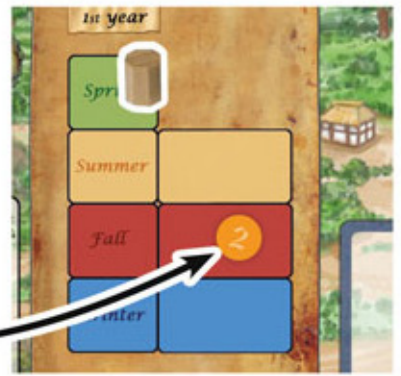
**Please note:** Any placed tokens remain **at their place until the end of the game** and may not be removed! Since every player has 3 pairs of tokens and **every pair can only be used once**, he can at most plan 3 PW.

**Hint for planned work:** You can plan even if you do not already have the necessary wood pieces or equipment yet. You need to make sure that you have the required items when the season (round) comes around.





Example: We are in spring of the first year. **Harold** wants to plan the PW "sawing" for fall. Since fall will not come for 2 rounds, he must use his token with the number "2" (i.e.: he plans to do this in 2 rounds) and places it accordingly on the PW card. He must place the second one of these tokens on the fall position of the seasons track. It indicates that there is a PW planned for this round.



These 2 tokens indicate exactly who (**Harold**, because he is orange) does what ("sawing", because one token is on that phase) when (fall, because the other token is on the fall position).



**Harold** needs to make sure he has 2 wood pieces in his sawing area and at least 1 sawyer and 1 sawing equipment token in fall, so that he can use the PW "sawing" (saw 2 wood pieces with only one sawyer and one saw) then.

### How much does planning cost?

The **costs of PW** depend upon how many tokens have been placed on the card. Every token is 1 dollar, paid to the bank:

- If you choose a PW, that **no player has chosen previously**, then this PW is **for free**.
- If you choose a PW, that has already been chosen previously by **1 player**, then it costs **1 dollar**.
- If you choose a PW, that has already been chosen previously by **2 players**, then it costs **2 dollars**.



Example: **Nicole** wants to plan the PW "sawing" in this round. She moves her foreman to location 8. There are already 2 tokens on that card, so she has to pay 2 dollars, to use this PW. She would not need to pay anything for the PW "log driving". For the PW "craftwork" she would need to pay 1 dollar. For the PW "drying" she would need to pay 2 dollars.



### Where do you place all your new acquisitions from traveling along the supply path?

**Fodder** is placed on the sawmill pad in the **fodder storage area** (stable) on fodder value "3".

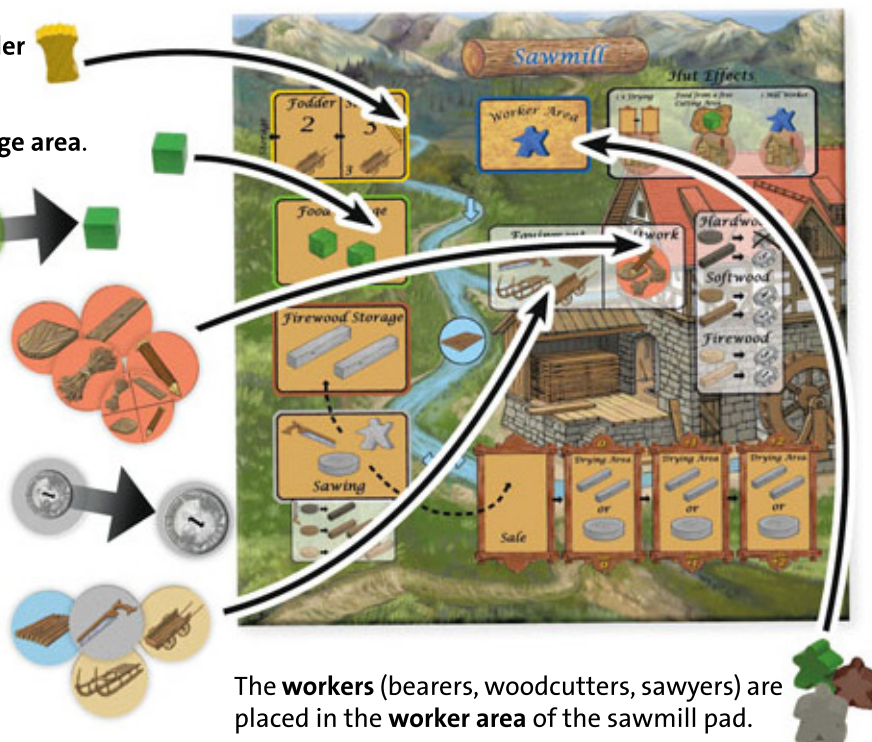
**Food** is placed on the sawmill pad in the **food storage area**.

**Food tokens** are exchanged for food pieces. The tokens are returned to the supply.

**Craftwork tokens** are placed face down on the sawmill pad in the **craftwork area**. You may inspect your own craftwork tokens at any time of course.

A **dollar coin token** is exchanged for a dollar coin from the supply and added to your own **money supply**. The token is returned to the supply.

The **other equipment tokens** are placed on the sawmill pad in the **equipment area**. You can have a **maximum of 4 saws**. All other equipments are unlimited.



The **workers** (bearers, woodcutters, sawyers) are placed in the **worker area** of the sawmill pad.



### End of supply of path:

The supply path ends after location 20. The first player to reach the **forest clearing** places his foreman pawn on the position "A", the second one on position "B", and so on. Players wait **until all** others have arrived at the forest clearing. Only then do they start with the wood work phases.

**IMPORTANT!** The order in which the players are now standing at the **forest clearing** determines the **turn order in the wood work phases**: first A, then B, then C, then D (this is very important when you have selected the same cutting area).

Also, the reverse of this order determines the **starting player order** in the next round (see page 14):

1st = D, 2nd = C, 3rd = B, 4th = A.



Example: **Victoria** has finished the supply path first and now stands at position A. **John** arrived as second at the forest clearing and now stands on position B. **Harold** arrived as third on position C. **Nicole** is still going along the supply path. She will arrive in the forest clearing at position D.

Example: the turn order in the wood work phases in this round is **Victoria** – **John** – **Harold** – **Nicole**

The starting player order is determined for the next round by using the reverse order: **Nicole** – **Harold** – **John** – **Victoria**

## 5 Wood Work (see phase track)

The wood work phases are the part of a game round in which the players (should) reap the rewards of their plans and make money. Now the **phase track** next to "spring/summer/fall" is used to conduct its 7 phases.

When a phase has been completed the **phase marker** is moved to the next position on the phase track until all phases have been completed.

In each phase each player takes a turn according to the **order in the forest clearing** (A, B, C, D). This is only important for the "woodcutting" phase if there are multiple players in the same cutting area or someone has a planned work "woodcutting" for this round. All the other phases can be done simultaneously.



The phase marker is always moved one position to the right.

**VERY IMPORTANT!** You can use the **mill worker** of your own color for **all types of work** (woodcutting, transportation and sawing). He is an "all rounder", does not cost anything, and can be used instead of **one** worker in every round.



### 1: WOODCUTTING (the phase marker is moved to position WOODCUTTING)

The woodcutters transfer wood pieces **from the cutting area to their woodpile card** (not to the saw mill!).

Starting with the first player (A) everyone places their **woodcutters** (possibly including their own mill worker) into the cutting area where their own **cutting area token with foreman** is.

For every woodcutter placed, players may take 1 wood piece (firewood, softwood or hardwood) from there and place it on their woodpile (**1 woodcutter can only harvest/cut 1 wood!**).



Example: **Nicole** (A) starts and places her 2 acquired woodcutters in the cutting area, where her cutting area token (with foreman) is standing. Since each woodcutter can only cut 1 wood, she gets 2 wood from this area and places these on her woodpile.

### What happens, when 2 or more players have selected the same cutting area with their token?

In this case the **order in the forest clearing** (A-B-C-D) is very important. The player who is first according to this order, does his "woodcutting" first as described previously. The subsequent player now has 2 choices:

1. He makes use of **whatever wood is left**, using the woodcutters he has there according to the same rules as above.



2. He pays one dollar and moves his cutting area token with foreman to a **different, free cutting area** and does his woodcutting there.

**Please note:** Any remaining food supplies in the cutting area may not be taken at this time! Should a player have more woodcutters than needed, then they are not used this round and remain in the worker area. After the round they are returned to the supply path though.





When all players are finished with the “woodcutting” phase, the phase marker is moved to the next phase. Player A (see forest clearing) starts again:

## 2: LOG DRIVING — wood arrival

In the “log driving – wood arrival” phase, players receive the wood they placed in the river in the previous round with the transportation method “log driving” at their sawmill. They may distribute this wood **in any way between the sawing area and the sale area** of their sawmill pad. You do **not need a worker** to receive wood in this way!



**Please note:** In the first round of the game (spring, 1<sup>st</sup> year) there is no wood that can arrive here, because it needs to be placed here first with a “LOG DRIVING – WOOD PLACEMENT” action.

Example: We are in the fall of the first year. **Nicole** chose the log driving transport method in the summer and transported 4 wood with her raft. (See section “3: Transportation” for how transportation works with a raft!) She now takes the 4 wood from her raft and decides to put 3 wood up for sale and put 1 wood (hardwood needs to be sawed first) into the sawing area.

When all players have finished with the “log driving – wood arrival” phase, then the marker is moved to the next phase. Player A (see forest clearing) then starts again:



## 3: TRANSPORTATION

In the “transportation” phase, the wood **from the woodpile** is transported to the sawmill.

There are 4 different methods by which this can be done:

- using bearers
- using wagons
- log driving (on the river)
- using sledges (only in winter)

Players can also **combine** various methods (e.g. wagons and bearers), as long they have the means (**worker and equipment**) to do this.

**IMPORTANT!** After transporting wood, it needs to be placed on one of the following **2 areas of the sawmill** or **distributed** among these areas **in any way**:

I. Onto the **sawing area** with the gray outline. This wood stays here until it is milled (sawed). Once here it may **never be put up for sale unless milled**. Milled wood is also needed for heating (in winter).



II. Onto the framed area **directly for selling** (not the drying areas!). This wood may be **sold** in this round in the “selling phase”. It may also be **dried** (see “drying phase”) instead to increase its value.

See sections “4:Sawing” (page 12), “6:Selling” (page 13) and “7:Drying” (page 14) for further explanations.

**Please note:** The decision where to place your wood is very important, because...

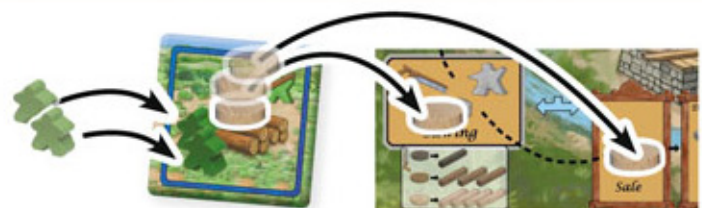
- ...wood in the **sawing area** needs to be **milled** (sawed) **first** before it can be sold. Once placed here it cannot be put up for sale unmilled!
- ...conversely wood once placed into the **sale area** cannot be milled (sawed) anymore!
- ...so wood – once placed – **cannot switch places** anymore!

You may have an unlimited amount of wood in both areas though! **Hardwood** (black) must always be placed in the **sawing area**, because it cannot be used unmilled, neither for selling (see phase “6:Selling” on page 13) nor for completion of tasks.

### Transportation by bearer



Players may use bearers to carry the wood **from the woodpile to the sawmill**. If a player chooses this method, he places his bearers (and possibly his mill worker) on the woodpile card. **For every worker** used, he may move 1 wood from the woodpile to the sawmill.



Example: **Nicole** has acquired 2 bearers and places them on the woodpile from which she may now transport 2 wood to her mill. Nicole decides to place 1 wood in the sawing area and 1 wood in selling area. She cannot transport the remaining wood on the woodpile so it stays there. It can be transported in the next round.



## Transportation by wagon



Players may use a wagon to carry **3 or 2 wood** from the woodpile to the sawmill.

For this, a player needs to place **1 bearer** (or possibly his mill worker) on the woodpile and needs to have **fodder** (for the oxen) and a **wagon equipment token**. Now he may move wood from the woodpile to the sawmill. The wagon equipment token is then returned to the supply.

Fodder may be used twice (i.e. for two transports): after the first use (transporting 3 wood) the **value drops** from 3 to 2, so that the second time it allows only 2 wood to be transported. After that the fodder is used up and returned to the supply.



*Example: Nicole is using wagon transportation (she previously got 1 bearer, 1 fodder and the wagon equipment token). She places 1 bearer on the woodpile, uses up the "wagon" equipment token (returns it to the supply) and moves her fodder to value "2". She may now move 3 wood from her woodpile to the sawmill. She decides to put 2 wood up for sale and to put 1 wood in the sawing area.*

**IMPORTANT!** As long as a player has **fodder valued at 3** in their fodder storage, he may **not acquire additional fodder** (there is not enough room in the stables). It is possible to acquire an additional fodder if the player has fodder at value 2. However, any transportation by wagon must **first use up the fodder at value 2**. There may **never be two fodder of the same value** in the fodder storage. Players may also never buy 2 fodder at the same time!

## Log Driving — wood placement



Log driving is the only transportation method in which there is a **delay** (namely exactly one round or season later) of the arrival of the wood at the sawmill. Log driving is lucrative, because only one bearer is needed to transport **many wood pieces** from the woodpile to the sawmill.

The player places **1 bearer** (or possibly the player's mill worker) on the woodpile. For every **raft equipment token** a player currently has and chooses to use, he may transport one wood piece each. The player then moves the **number of wood pieces** from the woodpile to the river area on his sawmill pad. Every raft equipment token used goes back to the supply. This wood is not available **until the next round** when it is placed either on the sale or sawing areas as described in the section "**2: LOG DRIVING — wood arrival**" (see page 10).



*Example: Harold places 1 bearer on the woodpile. He has 4 raft equipment tokens in his supply. He may now move 4 wood pieces from the woodpile to river area. These pieces remain there until the next "log driving — wood arrival" phase in the next round (next season). They can then be put up for sale or placed in the sawing area.*

**Please note:** Transporting wood by log driving means that the wood will arrive in the next round and thus cannot be sold and give you money until the next round! **Also, there is no log driving in winter** (the river is frozen). So if you start placing wood into the river in the fall of the first year, then you will not get your wood until the spring of next year! If you decide to start log driving in the fall of the second year, they will also not arrive in winter. Players may sell wood pieces of one kind in the river during the "final sale" though (see "final sale" on page 17).

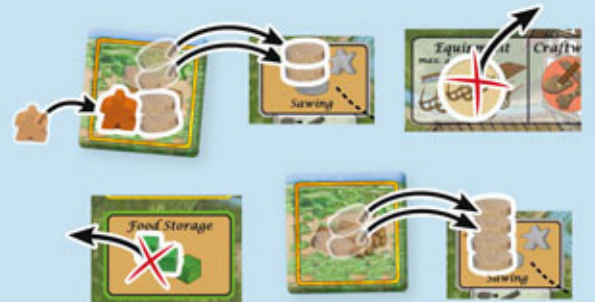
## Transportation by sledge (only in winter!)



Transportation by sledge is **only possible in winter** and also the only method of transportation in winter (no bearers, wagons or log driving!).

Players may use a sledge and their mill worker to transport **2 wood pieces** from the woodpile to the sawmill.

The **mill worker** is placed on the wood pile. The **sledge equipment token** is now used and put back into the supply. Now **2 wood pieces** may be moved from the woodpile to the sawmill. A player may use up to **3 additional food supplies** to increase the number of wood pieces to be transported (**1 additional wood piece per food piece** returned to the supply).



*Example: There are 4 wood pieces on Harold's woodpile. He decides to use transportation by sledge and can use his mill worker to bring 2 wood pieces to his sawmill. He has 2 food pieces he does not currently need, so he returns these to the supply, and thus increases the transportation capacity by 2. Now he can transport all 4 wood pieces and places them in the "sawing area".*



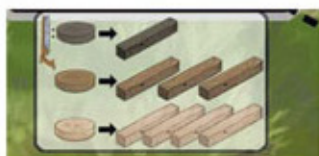
When all players have finished with the “transportation” phase, then the marker is moved to the next phase. Player A (see forest clearing) then starts again:



#### 4: SAWING

For every **wood piece (disk)** that needs to be milled (sawed), a player needs **1 sawyer** (or possibly his mill worker) and **1 saw equipment token**. The worker is placed in the sawing area, the equipment token is returned to the supply.

Every wood piece (disk) that is processed in this way is exchanged for a number of milled wood pieces (logs) of the same type in the following manner:



- 1 hardwood = 1 milled hardwood
- 1 softwood = 3 milled softwood
- 1 firewood = 4 milled firewood

Milled wood has the following **advantages**:

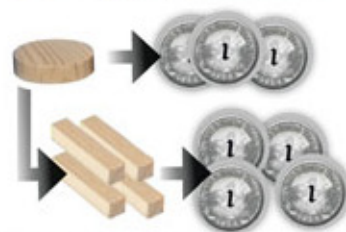
1. It can be used for **heating** in winter.



2. Milled wood can be sold for a **higher price** (see “6: Selling” page 13).



*Example: 1 firewood can be sold for 3 dollars. If it is milled, then the 4 milled firewood pieces this generates can be sold for a total of 4 dollars.*



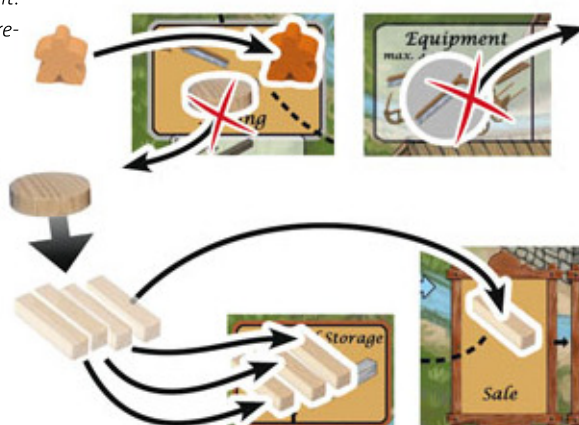
3. You can store **twice the number of milled wood pieces as unmilled pieces in the drying area**, to generate the drying bonus.



**Please note:** Once you have placed the newly milled wood in its area, it cannot be moved to somewhere else!

*Example: Harold places 1 sawyer on his sawing area and uses his “saw” equipment token. Now he may take one wood piece from the sawing area and exchange it. He removes a firewood...*

*...and decides to place 3 milled firewood in the firewood storage (for heating) and 1 milled firewood into the “sale area”.*



When all players are finished with the “sawing” phase, the phase marker is moved to the next phase. Player A (see forest clearing) starts again:



#### 5: TASKS

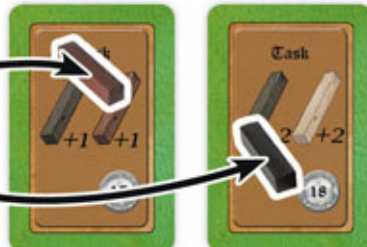
To complete a task, you need to **place the required pieces of wood as depicted on it**: For every task a different combination of **wood pieces in various drying stages (bonuses)** is needed. You do not need to complete a task at once – you can place some fitting pieces of wood on it every turn. A wood piece, once placed on the card, may **not be taken back or sold anymore**.



*Example: Harold has acquired the 2 depicted task cards. To complete the left task, he will need 1 milled hardwood and 1 milled firewood at drying stage 1; for the right task he will need 1 milled hardwood and 1 milled softwood at drying stage 2.*

*Harold's current situation in the sale and drying areas is as follows: On the sale area he has 1 milled softwood. On the leftmost drying area (stage 0) he has 1 unmilled firewood, on the middle drying area (stage 1) he has 1 milled firewood and 1 milled softwood. On the rightmost drying area (stage 2) he has 1 milled hardwood.*





Therefore **Harold** can accordingly place two of his wood pieces directly onto the task cards. To complete both tasks he will still need 1 milled hardwood at stage 1 and 1 milled firewood at stage 2. He may place these on the cards in a later round during the “task” wood work phase.

Should **Harold** complete both tasks, then he will get 35 dollars (17+18) at game end.

**IMPORTANT!** You do not get the **money** for completed tasks until the **end of the game**. If you have not completed a task by the end of the game, you get **no money** for it and you may **not sell** the wood on it!

**Please note: Winter!** During the winter round of the **first year** you may **not place any wood** on the task cards. During the winter of the **second year** you may place wood on the task cards **after the “sawing” phase**. This applies only to the winter of the second year – see the phase track on game board!



When all players are finished with the “sawing” phase, the phase marker is moved to the next phase. Player A (see forest clearing) starts again:



## 6: SELLING

Now players may **sell any or all** of their wood. They get a basic amount of dollars for each piece sold according to the following prices (also listed on the sawmill pad):

**IMPORTANT!** Only wood in the **sale area** and the **3 drying areas** may be sold. Any sold wood is returned to the supply.



- **1 hardwood** = cannot be sold, must be milled
- **1 milled hardwood** = 5 dollars
- **1 softwood** = 4 dollars
- **1 milled softwood** = 2 dollars
- **1 firewood** = 3 dollars
- **1 milled firewood** = 1 dollar

Players may get a **drying bonus** to the price of each piece sold (the appropriate bonus is listed for each drying area at the top and bottom of the frame; how wood is dried is explained the next phase “drying”).



Example: **John** sells 2 firewood and 1 milled firewood for 7 dollars; he does not get a price bonus for milled firewood in the first drying area.

$$3+3+1=7$$



Example: **Victoria** sells 1 firewood, 1 milled firewood, 1 milled softwood, 1 hardwood, and 2 more milled softwood for 12 dollars. She also get a bonus of +1 for the milled softwood in the second drying area and two times a bonus of +2 for the two milled firewood in the third drying area. This means she gets a total of 17 dollars.

$$3+1+2+4(+1)+1+1(+2+2)=17$$

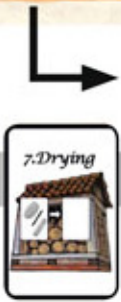


**IMPORTANT!** Any wood on the **last (third) drying area** **must always** be sold!

## Hints and Tips:

- It is important to get at least 1 wood into the sale area in the first round.
- If you cannot sell some wood then you might be missing money to buy things you need in the next round such as: woodcutters, fodder, saws, etc. These things need to be paid again in the next round.
- Do not always sell all your wood, but try to dry some of it, because this gives you a valuable drying bonus.
- Do not despair if you cannot increase your amount of money or it even decreases in the beginning. The true value at this time already lies within your sawmill.





When all players are finished with the “selling” phase, the phase marker is moved to the next phase. Player A (see forest clearing) starts again:

## 7: DRYING

Drying **increases the value** of wood (= drying bonus). Wood that is not sold in the selling phase may be **moved** one drying area to the right.



drying bonus  
— from 0 to 2

Example: *John* moves all of his wood pieces on his sale and drying areas each one area to the right. He must leave his milled firewood on the sale area though.



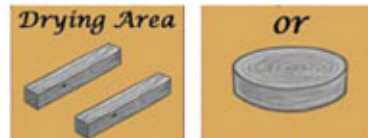
before the “drying phase” movement



after the “drying phase” movement

The following rules must be adhered to for this:

- The **selling area** may contain **any amount** of wood.
- The **drying areas** each may only contain **either 1 (unmilled) wood piece** (either softwood or firewood) or **at most 2 milled wood pieces** (no matter which kind, even two different kinds).



Every drying area may only hold either 1 (unmilled) wood piece or a maximum of 2 milled wood pieces.

When all players are finished with the “drying phase”, then all the wood work is finished!

## 6 Determine player order

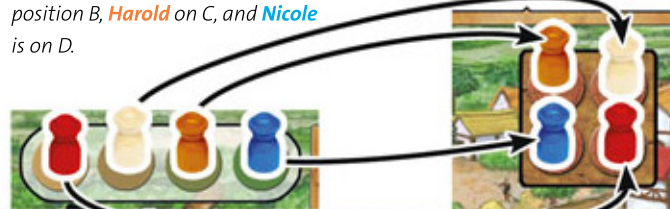
To determine the player order for the next round, use the **inverse order in the forest clearing**: The last player in the forest clearing puts his marker on position 1 of the starting player order track, the second-to-last player on position 2, and so on. After this the foreman pawns are put back on the supply path.



Example: In the forest clearing, *Victoria* is on position A, *John* on position B, *Harold* on C, and *Nicole* is on D.



Therefore, *Nicole* will be the starting player in the next round, followed by *Harold* on 2, *John* on 3 and *Victoria* on 4.



All players place their foreman pawns back on the starting location “0” of the supply path.

— END OF GAME ROUND —

BEFORE THE NEXT ROUND

Before the next round starts,...

- ...place **all workers** (woodcutters, bearers and sawyers) **back** on their appropriate places on the supply path.

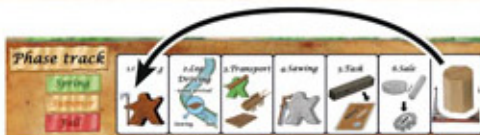


- ...everybody places their own **mill worker** back onto their **sawmill pad** into the worker area and the **cutting area token with foreman** next to the sawmill pad.

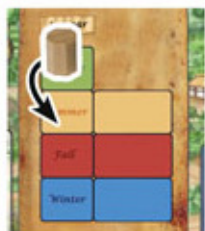
- ...put all **remaining equipment tokens** on the supply path **back into the supply**. Players keep the acquired equipment tokens in their sawmill and can use them in later rounds of course. The **remaining craftwork tokens** are removed from the game!



- ... place the **phase marker** back on the **first position** of the phase track, move the **season marker** to the **next season**.



Example: The woodwork phases in "spring" have been completed, the phase marker is placed back onto "phase 1: woodcutting".



Example: Spring has been completed, the season marker is moved forward to "summer".

- Start the new round again with **filling up the supply path**:

Put together 13 tokens again as described in section "fill up supply path", shuffle them face down and place these face up along the supply path (see page 5).

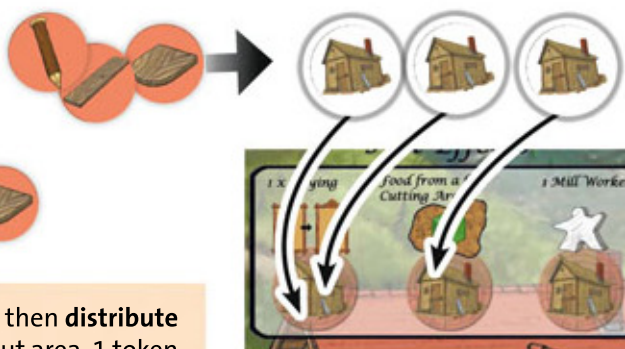
## SPECIAL ACTION – HUT CONSTRUCTION

A player who has collected **3 different craftwork tokens** (stake, board and shingle) can immediately turn these **into huts** (**one for each token**) anytime during his turn. A reed bundle cannot be used for this though. It can only be sold at the market!

A **joker token** may be used like **any** craftwork token of the player's choice.



**IMPORTANT!** The player flips the tokens to the **hut side** face up and may then **distribute them on any of his 3 hut effect areas** (he may place all 3 tokens on one hut area, 1 token on each area, or 2 tokens on one area and 1 token on the other area). After he has made his decision he may not move around these tokens anymore!



Example: 2 huts are built on area 1, 1 hut on area 2, area 3 is left vacant.

The hut areas represent **various advantages** that a player may use **anytime during his turn** (by putting the token out of the game).

When all tokens have been used up, there are no more advantages available.



Hut tokens are removed after using their advantage.



A token on this area means the hut is used for drying.

**Advantage:** For every token here you can **move 1 wood** (milled or not) **by 1 area to the right** in the drying areas, ignoring the amount limitations! (i.e.: you may have more wood pieces lying there because of this than normally allowed). The wood piece can be moved from any area to the right. This can also be done **multiple times** depending on the number of hut tokens used. This can be used **anytime in your own turn** when traveling along the supply path or during the wood work phases.



A token on this area means that the hut is used as **food storage**.

**Advantage:** For every token here you can take the **entire food supply of a free cutting area**. Free cutting area means a cutting area with no cutting area token of another player! This can be used **anytime in your own turn** when traveling along the supply path or during the wood work phases.



A token on this area means the hut is used as a **worker accommodation**.

**Advantage:** Every token here counts as an **additional worker** from the sawmill (like an additional mill worker), which can be used like any worker in the game. Using a hut token here replaces **one WOODCUTTER, BEARER, or SAWYER**. Of course you still need the appropriate equipment tokens to do the work (e.g.: a saw when using a sawyer). Using this advantage you can **do various work in winter** too. e.g.: woodcutting, sledge transport and sawing. This can always be used whenever workers are needed in the wood work phases.



# PLAY IN WINTER

After the fall season comes the winter round. The winter round is a **special round** (with its own phase track), in which the wood work can only be done as follows.

The two **winter cards** display the **supplies** the players need to have for the first and second game years.

*Example: To make it well through the first winter, players will need 6 food and 3 milled firewood.*



**Please note:** The supply path is not used in winter and since you need to have food supplies and wood for heating as shown, it is important to have already collected (or purchased) the necessary supplies **in advance**!

**Heating Remark:** It is also possible to use **milled softwood** or **milled hardwood** for heating. Since these have a higher value for selling though, it is **not economical** to do this.

The phase marker is placed on the position titled “Winter”. Now each of the following 6 phases is done step by step. In each phase players take their turn according to the **order in the forest clearing**.



## Bonus:

Every player may take **1 wood of his choice** (from the supply) and place it on their woodpile.



**Note:** Since players cannot acquire workers in winter, they **only** can use their **own mill worker** (exception: hut as “accommodation”). So if you only have your own mill worker, you need to choose between woodcutting, transportation or sawing.



## 1: WOODCUTTING

The player places his **mill worker** on the woodpile and may now take **2 firewood** (only firewood is allowed) from the supply and place them **on his woodpile**.

**Note:** For every hut (accommodation) used the player may place 1 additional firewood on his woodpile!



## 2: TRANSPORTATION (sledge)

The player places his **mill worker** on the woodpile and may use sledge transportation to transfer **2 wood pieces** (or more using food) from the **woodpile to the sawmill**. The player may use up to **3 additional food supplies** to transport **1 additional wood per food** returned to the supply. For details see page 11.



## 3: SAWING — for details see page 12

Sawing can be used to **mill 1 wood**, to use for heating or for selling. The **mill worker and a saw** must be used accordingly. Instead of a mill worker an “accommodation” hut may be used. For 2 sawing actions you need 2 saw equipment tokens of course.



## 4: TASKS

During the winter round of the **first year**, you **may not place any wood** on the task cards. During the winter of the **second year**, you **may place wood on the task cards** after the “sawing” phase. This applies only to the winter of the second year – see the phase track on the game board!



## 5: FEEDING

All players must now hand in the **necessary amount of food** as given by the winter card (back into the general supply). If a player does not have enough food, he must pay **3 dollars for every missing piece of food**. If a player does not have enough money to pay for this, he must take out a **loan card** (or even 2). If even this is not enough he must sell as much wood as necessary from the mill (even from the sawing and heating areas if necessary; for prices see “Selling”), so that the required amount can be paid and so that he has also some money available for the next season..



## 6: HEATING

All players must now hand in the **necessary amount of wood for heating** as given by the winter card (back into the general supply). If a player does not have enough wood for heating, he must pay **3 dollars for every missing piece of wood**. If a player does not have enough money to pay for this, he must take out a **loan card** (or even 2). If even this is not enough he must sell as much wood as necessary from the mill (even from the sawing and heating areas if necessary; for prices see “Selling”), so that the required amount can be paid and so that he has also some money available for the next season.



**Please note:** Any **excess amount of food** cannot be kept for the next round. All food pieces go **back to the general supply**.



**Please note:** Any **excess amount of wood** can be kept and used for the next winter.





When the first winter is finished, then play starts for the spring of the second year. For the second year the winter conditions of the second winter card is used.

## GAME END – FINAL SALE

After the second winter is done, there is a final sale: Players sell **all their remaining wood** that is for sale (= in the sale area and the 3 drying areas).

Additionally they may sell all the wood of one kind **on the river** (firewood OR softwood). If they have different kinds of wood on the river, they must decide which kind to sell.

Unmilled hardwood and wood in any areas other than the sale/drying areas and the river (sawing area, woodpile, heating storage, ...) may not be sold!

Players also receive money for their **completed tasks**.

**Do not forget:** Any loan cards **must be paid back!**

A loan card works like credit: anytime during your turn you may take a loan card. You take the loan card and get **4 dollars from the supply**. You place the loan card next to your sawmill pad and it remains there until the end of the game.

To return the loan card you must **pay 7 dollars**.

If you want to take a **second loan**, you turn over your existing loan card and take **another 4 dollars** from the supply. At game end you must then **pay 16 dollars** to the supply instead.

A player may only have a **maximum of 2 loans**.

## WINNER

The player who now has the most dollars wins the game!

## CHANGES FOR 3 PLAYERS

Place the following on the **supply path** every round:



8 bearers  
(on location 4)



12 woodcutters  
(on location 10)



4 sawyers (on location 16):  
• 3 workers at “price 0”  
• 1 worker at “price 1”



2 fodder (on location 6)

**Preparation for the first round:**

- 2 firewood each onto any 3 cutting areas
- 3 firewood + 1 cutting area token each on the 3 other cutting areas.



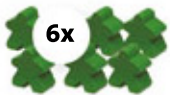
*Example: 3 firewood are each placed on the cutting areas 1, 5, and 6. Place a cutting area token here each for the 3 players, too. 2 firewood are placed each into the remaining areas (2,3,4).*

**IMPORTANT!** With 3 players **only draw 2 placement cards** during the “mark wood to be cut” step.



## CHANGES FOR 2 PLAYERS

Place the following on the **supply path** every round:



6 bearers  
(on location 4)



8 woodcutters  
(on location 10)



3 sawyers (location 16):  
• 2 workers at “price 0”  
• 1 worker at “price 1”



1 fodder (on location 6)

**Preparation for the first round:**

- 2 firewood each onto any 4 cutting areas
- 3 firewood + 1 cutting area token each on the 2 other cutting areas.

Shuffle the **13 tokens as shown on the right** face down and place them on the 13 locations of the supply path. Locations marked with an X-token cannot be used!



+



3x craftwork (face down!), 2x food, 1x dollar coin, 1x saw, 1x wagon, 2x rafts, 1x sledge, 2x X-token

**IMPORTANT!** With 2 players **only draw 1 placement card** during the “mark wood to be cut” step.





# THE PLANNED WORK CARDS



## TRADE

The player can **sell any amount of raft, sledge and wagon equipment tokens** at the market **for 2 dollars each**. The sold tokens go back to the supply.



## SAWING

The player can **saw 2 wood pieces at once** with only one sawyer and one saw. If the player has the according number of sawyers with a saw each, then he also can saw up 4, 6, or 8 wood pieces (provided he has the required wood pieces in his sawing area).



## HEATING SUPPLY

A firewood piece is exchanged for **6 “milled firewood”** pieces when sawing. If a player has more than one sawyer with a saw each, then he can accordingly saw more into 6 milled pieces each (if the wood is in the sawing area).



## DRYING

A player may place **twice the normal amount of wood into the drying area** in the planned round and of course continue to dry that wood further. The player may either place 2 unmilled or 4 milled wood pieces in the first drying area.



## LOG DRIVING

During the transportation phase of the planned round the player may place **up to 3 wood pieces** on the river area of his sawmill board (like “log driving”). The player **does not need a worker nor a raft equipment token** to do this. The player may do normal log driving in addition to this then, too.



## CUTTING

During the “woodcutting” phase, the player may **hire 2 more woodcutters** than he has wood in his cutting area. The player may also **move up to 2 of his woodcutters** (or 1 woodcutter and his mill worker) **into another cutting area** to take wood from there. It is possible to “snatch away” the wood that another player was intending to get there (if he takes his turn before the other player (see forest clearing)). The affected player may choose to either do his turn with whatever wood is remaining in that area, or to pay 1 dollar and switch into another free area. He may only take the wood there (according to the number of his woodcutter/mill workers he is using), but not the food supplies.



## CRAFTWORK

The player can **sell his craftwork tokens for a better price** at the market  
2 identical craftwork tokens = 5 dollars  
3 identical craftwork tokens = 8 dollars  
4 identical craftwork tokens = 11 dollars



## FOOD SUPPLY (log driving)

If the player does log driving in the planned year, then he **immediately receives 2 food pieces for every wood piece placed onto the river** (when log driving).



## HUT CONSTRUCTION

If the player has **2 of the required craftwork tokens** for constructing a hut in the planned season, then he can **exchange them immediately for huts**. These two tokens are flipped over and placed on the hut areas.



## OVERTIME

When the planned season arrives the player may **immediately take 1 black hardwood piece** (from the supply) and place it on **his own woodpile**.



## TACTICAL VARIANT (SELECTION OF CUTTING AREA)

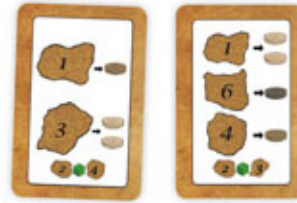
In the tactical variant **every player only gets 1 cutting area token of his color** (the number on the back does not matter). The remaining cutting area tokens are not used and removed from the game.



Only 1 cutting area token per player (instead of 6 tokens)

**Before the start of the current round** (e.g. spring) the placement cards for the **next round** (e.g. summer) are revealed:

- **4 players:** 3 placement cards
- **3 players:** 2 placement cards
- **2 players:** 1 placement card



Example: With 3 players 2 placement cards are revealed before the start of spring for summer.

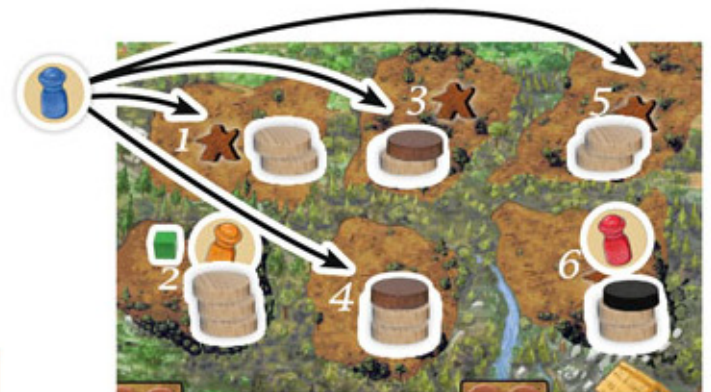
The players now know in which cutting areas new wood and food will be available. So it is clear, how the cutting areas will be like with the wood and food they will have to offer in the next round.

The **selection of the cutting area** for the next round depends upon the position in the **forest clearing** in this variant.

Since the foremen will not be standing in the forest clearing anymore, the **inverse sequence on the starting player track** is used. The player who is furthest behind on the starting player track first selects his desired cutting area – this was the player who reached the forest clearing first. The second to last player on the track then selects his cutting area secondly. The second player on the track selects his area as third and the first player on the track his as last.



Example: **Victoria** is on the last position of the starting player track and therefore places her cutting area token first. **Harold** is second and **Nicole**, the current starting player, places her token last.



**Nicole** may place her token on area 1, 3, 4 or 5. Areas 2 and 6 are already occupied (**Harold** and **Victoria** placed their tokens there).

**IMPORTANT!** If you want be first when selecting the cutting area next round, you need to be the **first to arrive at the forest clearing!**





## TIPS FOR PLAYING

- When **traveling along the supply path**, you should consider alternatives to your plan in the wood work phases. You will not always be able to get all the equipment and workers you want. The mill worker is especially well suited for this.
- You can take out a **loan card** for tactical reasons, too. In certain situations this can have a very positive effect.
- You should make use of all your **acquired workers** and your **mill worker** in every round.
- In a **well-planned and prepared winter** you can often earn a few dollars (e.g.: transportation with sledges and using excess food supplies, combination with huts...).
- The **sale of craftwork tokens at the market** will give you some extra income, which can very much improve your plans for the next round (especially in the first year).
- Even when you have enough money (usually in the second year) you should continue to optimize your moves as best as you can. Every **dollar saved** is a victory point at game end.
- **Planned work** makes every game different, since only up to 6 of the possible 10 cards can be in a game. Therefore you should carefully “read” the cards laid out. Coordinating your own strategy with the planned work often allows very efficient combinations.
- You should never forget that you need to earn more money than the other players to be successful at Lignum. Therefore sometimes it is good to prevent or interfere with **obvious plans of other players** by “snatching away” their desired acquisitions.
- It can be advantageous to pay attention to which **craftwork tokens** other players are collecting.
- The **optimizations** are in the details, but we leave this to you to find out and use...

## FAQ — FREQUENTLY ASKED QUESTIONS

- **What happens, when there are no more wood or food pieces?** There is an unlimited supply wood (disks and logs) and food. Games of Lignum can often be very different and depend on many factors. Should all wood or food pieces be used up, you can replace them by using the amount tokens (3/5) (e.g.: in the food supply, heating storage,...). The replaced pieces can be put back into the general supply.
- **A planned work needs to be paid, when it has been planned by a player. Do you need to pay for every token lying there or for every player (every color)?** You must pay 1 dollar for every token that is lying on the planned work card, even if you placed it there yourself.
- **Can you also construct huts in winter?** Yes. You can construct a hut anytime during your turn and you can use immediately use its advantage then, too.
- **In a game with two players it can happen that there is no hardwood (only 5 of the 15 placement cards are used). How can you complete tasks in such a game?** Yes, that can happen. Since players gets a bonus at the start of winter though, they can choose to take a hardwood then as their bonus. This allows players to complete at least 2 tasks in a game. If the planned work “Overtime” has been laid out, it is possible to get an additional hardwood through this.
- **When you don't have enough food supplies or wood for heating in winter, then you must take out a loan card for the missing amount. If that is not enough, then you must sell wood from your mill. Can you sell wood from your mill without taking out a loan card first?** No, you always have to take out a loan card (or 2) first. Only then can you sell as much wood from your mill to cover the costs and to have some more for the next season (– important in the first winter). If you already took out your second loan card before the winter, then you may immediately sell wood from the mill. You cannot have more than 2 loan cards in the game.

## GENERAL NOTES

- In your first game, we advise you to do the turns in the wood work phase separately as per the order in the forest clearing. This allows you to more easily learn how the phases work and avoid mistakes or misunderstandings. (Later on you may do the phases simultaneously of course.)
- In your first 4-player game, we recommend using the easier winter conditions for each year.

## THANK YOU FROM THE AUTHOR

FOR MY FATHER AND MY GRANDMOTHER

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