

Advanced Economy Guide Addendum – Wood

You need four values to calculate Wood production:

1. The current propensity for the province to produce Wood (Base Amount or **BA**). (“Timber” in *COG2Provinces.txt*.) **If this amount is 0, for all tradable goods but Cotton, the code will substitute .5.**
2. The current number of Farms. (“Agricultural” in *COG2Start.txt* for newly started games.)
3. The Slider Multiplier, or “Slider” in the formula. This increases or decreases the production based on the slider setting as dictated by the base amount for the resource. **See the introduction to the Addendum to see how this value is determined.**
4. Current National Morale level, or NM. (The “Morale” value from *COG2Players.txt*, less 1,000, for newly started games, otherwise use the amount from the Economic Advisor screen.)
5. The current Tax Rate. (The “TaxRate” value from *COG2Players.txt* for newly started games. Otherwise it’s the amount found on the Economic Advisor.)

The **formula** is: $BA \times \left(1 + \frac{Farms}{10}\right) \times \left(1 + \frac{NM}{10000}\right) \times Slider \times \left(1 - \frac{Tax\ Rate - 15}{100}\right)$

For Berri, 75% Wood slider, this is $2 \times \left(1 + \frac{2}{10}\right) \times \left(1 + \frac{500}{10000}\right) \times 4.25 \times \left(1 - \frac{20 - 15}{100}\right)$
or 10.17.

Then, round the total down if you want to match the Development Advisor quantity. Keep in mind that you would actually have a 17% chance of receiving 11. Fractional amounts are retained until the last step of the calculations to allow for the probability test to be applied that I mention the Advanced Economy Guide. Be sure to estimate the effects of waste if you want a more accurate number.

Notes:

There are other adjustments to the production of Wood that are not detailed here. For example, see the Manual for the effects of waste, the feudal level, the presence of enemy units, unrest, and weather. There may also be event related adjustments. All of these adjustments are usually quite small.

Playing hints:

Always develop Farms in those provinces that have a larger Base Amount of Wood production if you wish to maximize Wood production. But remember, each Farm also increases production of Wool, Horses, Food, Wine, Spice, and indirectly, Textiles. So, also consider developing Farms where you can see some advantage in all of those resources, as well.

Formula Accuracy

The screenshot below shows that the True Error for all countries is 0, except Russia and Turkey. This means that the formula works well, except for Waste and Feudal Level. I have taken into account the adjustments from Courts and Culture, but it still is not a perfect match. But, in this case an error of 4 is actually very small, and is actually about 12% less than what the formula predicts. Since Russia should get a Feudal Level penalty of 2 Wood, it still appears that more Wood is lost through Waste than is calculated by the formula.

[illegible]

Also, notice that Russia's Total Waste calculation is 37.6%. This is very close to the 40% they should get for their current waste level. Some provinces may be exempt and some may have reduced effects, so the formula I present is actually very accurate, Waste Included. Turkey may be very close to 100% accurate, since they would receive a minus 2 Wood penalty for Feudal Level and 14% for Waste.