

NCSU Budget Updates for 2022

Labor 11/12/2021

There were initial indications in 2020 that the H2A Adverse Effect Wage Rate would stay frozen through 2022 because of the pandemic. The reported rate for H2A, Non-Range Occupants, effective 2/23/2021 for NC is \$13.15, an increase from the 2020 wage rate of \$12.67. This comes directly from the [U.S. Department of Labor](#). From previous studies conducted in 2016 by NCSU ARE it was determined that there are additional fixed cost associated with hiring H2A labor such as provision of housing, workers compensation, transportation, utilities, and growers association fees. This cost can bring the total hourly cost of H2A up an additional \$2-\$3 an hour or more depending on your farm's labor efficiency. These fixed costs are only accounted for in the 2022 tobacco and sweet potato budgets listed as H2A OVERHEAD. In those budgets, we assume the tobacco and or sweet potato crop carries the fixed cost of labor across all potential crops in a farm's rotation. There is speculation that the H2A rate will increase another dollar to a dollar and a half in 2022. It would be wise to assume that the labor shortages due to a post pandemic economy will only complicate an already difficult labor market in the agricultural sector regardless of the source of labor.

In the "VARIABLE COST" section under the line item titled "TRACTOR/MACHINERY" are the assumed variable cost for listed equipment. That equipment list, along with the associated cost, can be found under "PER ACRE MACHINERY AND LABOR REQUIREMENTS" section of the budget. The labor hours are included and listed in this section and assumes the \$13.15 per hour rate + an additional 15% inefficiency rate for employees operating equipment. This is meant to account for time between fields, daily maintenance, and equipment logistics.

Interest Rates 11/12/2021

In February 2021, the USDA announced that lending rates for FSA farm operating loans are at 1.375%. Private Banks are offering terms from 1.1% to 2.5% based on good credit and business history. Actual interest rates can vary based on the purpose of the loan and the individual farmer. Rates can start as high as 12% for unique lending options and/or poor or no credit history. The 2022 budgets have an assumed 2% interest for operational loans supporting the cost of seed, pest control, fuel, electricity, irrigation, cover crop, equipment maintenance, and labor (where applicable) across all budgets. For equipment, loans and other long-term loans, current rates vary from 2.5% to 6.9% depending on the terms and amount of the loan. We assume a 5-year loan fixed rate at 2.9%. All indications now show a stable rate through spring of 2022 prior to planting. Because of the decrease in rates of long-term equipment loans, there is a decrease in TRACTOR/MACHINERY fixed cost in the budgets as compared to 2021.

Energy Cost 11/12/2021

The U.S. Energy Information Administration is predicting increases across the board as of October 13th, 2021. Their estimations for the U.S. in 2022 are as follows:

- Propane increase 54%
- Heating oil 43%
- Natural Gas 30%
- Electricity 6%

The NOAA is predicting heating degree-days to be 3% higher this year than last year for the nation and even if the winter is warmer than average, expect energy cost to increase. Farm use propane for NC averaged \$1.99 per gallon as of 10/15/2021. Tobacco use propane is mainly used in the summer months when demand is low. Futures markets show a 28% decrease in price in LP from October to the summer months when LP will be used on the farm, a normal decrease based on demand. The budgets apply the seasonal price decrease of LP to assume an average cost of \$1.43 per gallon July through August. This is roughly a 30% increase from seasonal low LP prices in 2021.

U.S. Fuel and Gas prices are predicted to remain relatively stable through December as compared with previous months. Reports indicate gas going up over \$3.20 and settling back to around 3.05 by December. Statewide gas prices in North Carolina average at 3.21 as of 10/21/2021 and in the past twelve months NC experienced a \$1.20 per gallon increase overall. Gas prices are set at \$3.20 in the 2022 budgets.

U.S diesel prices have increased \$0.50 in the past 6 months to \$3.67 per gal. As of 10/18/2021 NC average on-road diesel prices are estimated to be \$3.50. The NCDA production cost report shows an average of \$2.86 per gallon for farm diesel fuel with a range of \$0.14. U.S. Diesel Futures look relatively stable through 2022 with an expected mild decrease in price. The rate for farm diesel in the budgets is set at \$2.80. This is a significant increase from cost indicated in the 2021 budgets, roughly 120%. Because of an increase in the price of farm use diesel fuel, there is an increase in the TRACTOR/MACHINERY variable cost listed in all the budgets in 2022 as compared to 2021.

Fertilizer Cost

The NCDA Production cost report shows the following prices as of 11/24/2021:

Product	Offer	Average
18-46-0	649.00-1,082.00	818.13
18-46-0, Bulk	609.00-1,042.00	778.13
10-10-10	410.00-595.00	505.67
10-10-10, Bulk	370.00-555.00	465.67
Lime	204.00-250.00	222.83
Lime, Spread	36.50-65.00	52.38
Potash	740.00-1,029.00	858.50
Potash, Bulk	700.00-989.00	818.50
Calcium Nitrate	495.00-597.00	532.33
Liquid Nitrogen 30-32%	350.00-750.00	511.25
Urea, Bulk	447.00-1,015.00	704.00
Ammonium Sulfate	452.00-652.00	521.33
Ammonium Sulfate, Bulk	385.00-612.00	457.25
Whole Cottonseed	220.00-230.00	226.25

As compared to last year for fertilizer products used in the budgets the percentage multiplier for the increase in cost is found below (2021 cost X % Multiplier = 2022):

- 18-46-0(DAP) = 162%
- 10-10-10 = 140%
- Lime = 0%
- Potash(0-0-60) = 203%
- Calcium Nitrate (15-0-0) = 102%
- Liquid Nitrogen (30-0-0) = 182%
- Urea (46-0-0) = 135%

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