MULTI-YEAR ROTATIONS

Kansas Revised Universal Soil Loss Equation 2 (RUSLE2)
Training Exercise 3

Task: Using inputs from Exercise 2, modify the ***Profile*** as indicated below to expand the cropping sequence from continuous corn to corn/soybean. With the rotation builder, single-crop or single-year templates are pieced together to form multi-year or multi-crop rotations.

Step-By-Step Procedure:

1. Under Step 4b, single left click the **+** under Man, to add one year to the rotation. Note: A copy of the year one management is created.
2. Since we want to add a soybean year, we must first change the management in year one because it contains a fall disk. Under a continuous corn scenario, a fall disking is disking corn stalks. In a corn-soybean rotation this would mean that you would be fall disking soybean residue. Under ***Management***, left click the down arrow on year one and select ***Corn grain; NT Z24.*** Selecting this means that corn will be no-tilled into soybean residue.
3. Under ***Management***, left click the down arrow on year two and navigate to ***Soybeans\30 in\soybeans; Sconv,disk,fcult,z24***. Selecting this means that soybeans will be planted into spring disked and field cultivated corn residue.
4. To the right of the screen, select ***Apply rot. builder manag.*** This will apply the changes.
5. You will be prompted to Re-name cloned file. Type a new file name of ***Corn NT Soybean ST,*** then select ***Accept***. Notice the soil loss for conservation plan. Adding soybeans increased the potential erosion rate.
6. Save as a permanent file. Select ***Save Temp Management as Perman.*** Also name the file ***Corn NT Soybean ST***, click ***Accept***.
7. Look at the soybean yield under step 4C. Do not change 30 bu/ac soybeans. Notice that after applying the new cropping sequence, the corn yield was lost. Re-enter **90** bu, then exit from the yield window by selecting the ***X*** in the top right corner of the screen. The soil loss for conservation planning is _____ t/ac/yr.
8. Under step 4C, adjust res. burial level to ***Bury 30% less than normal.*** The soil loss for conservation planning is _____ t/ac/yr.
9. If the residue is buried ***10% greater than normal,*** the soil loss for conservation planning is _____t/ac/yr
10. ***Save*** this Profile. Name it ***NT Corn ST Soybean***

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