John Deere Hay Bale Problem

Part 1*

John Deere is thinking about coming out with a new length of its Edge to Edge Netwrap. Currently it has rolls with lengths of 13,200 and 9700 ft. The company wants you to write a formula that can be used to quickly build a table to show customers how many bales can be made using an unknown length of netwrap, unknown diameter of the bale, and an unknown number of wraps per bale. In other words, write a formula that has only variables and no numbers(except π and 2**). Remember to define all of your variables.

**NOTE: John Deere recommends adding 2 feet per bale when figuring the amount of Netwrap to wrap a bale one time in order to allow for in-field variables such as overlapping and over-sized bales.

Part 2*

Make a table for a netwrap length of 10,500 ft for bales with diameters of 5 and 6 ft. Use increments of .5 wraps ranging from 1.5 to 4 wraps per bale.

*I have posted a John Deere document on my website showing an example of what your table could resemble. It also has other information that may help.