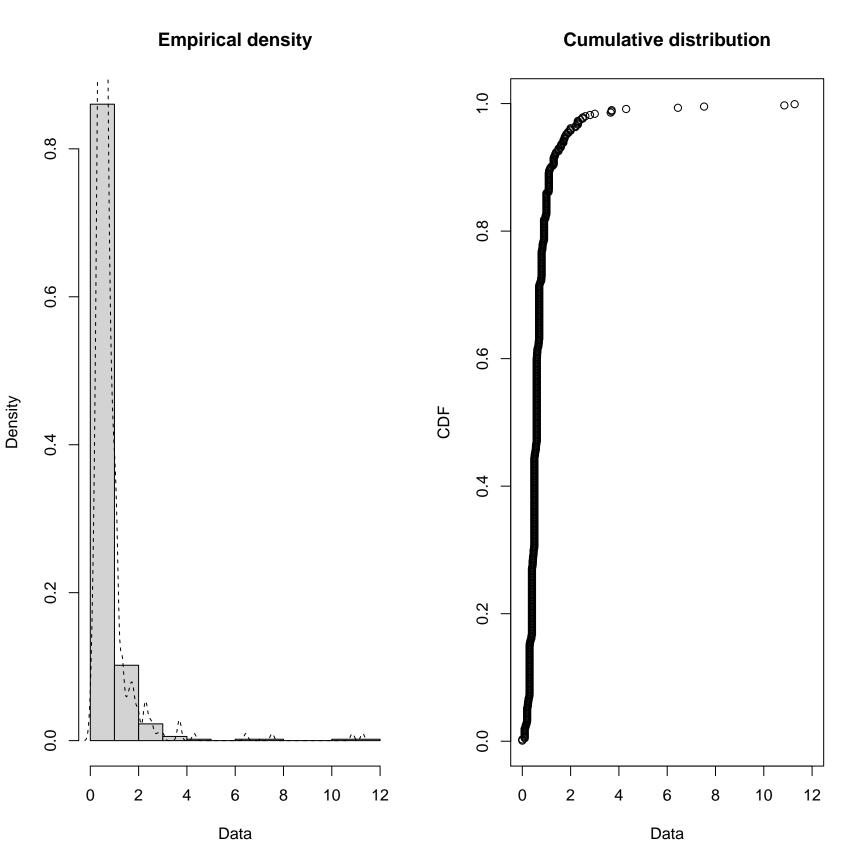
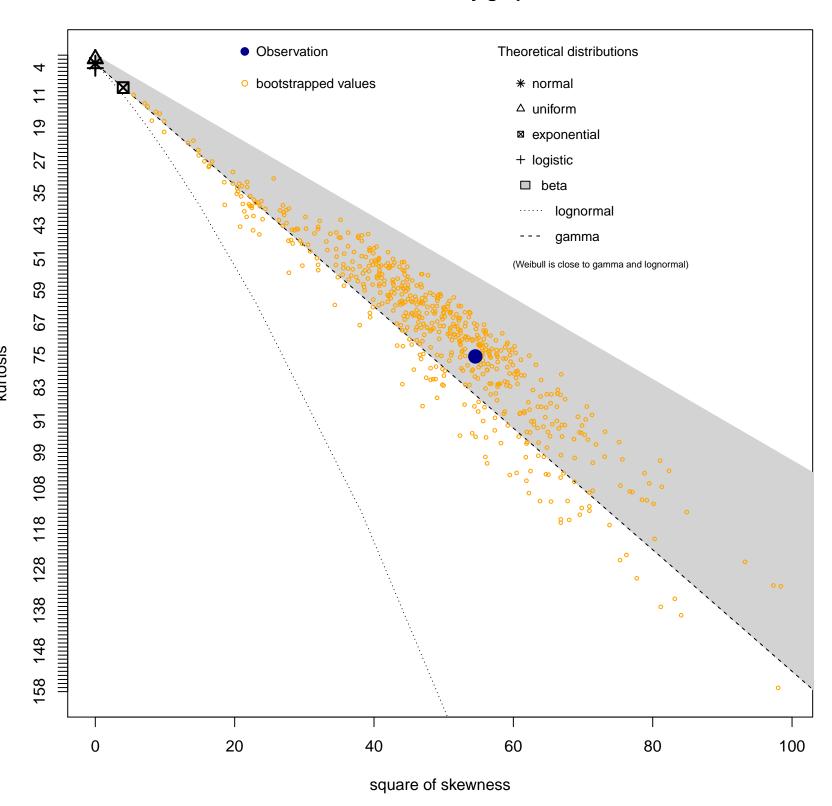
# Summary of the variable

Min. 1st Qu. Median Mean 3rd Qu. Max. NA's 0.0000 0.4000 0.6000 0.7613 0.8000 11.2774 85



#### **Cullen and Frey graph**

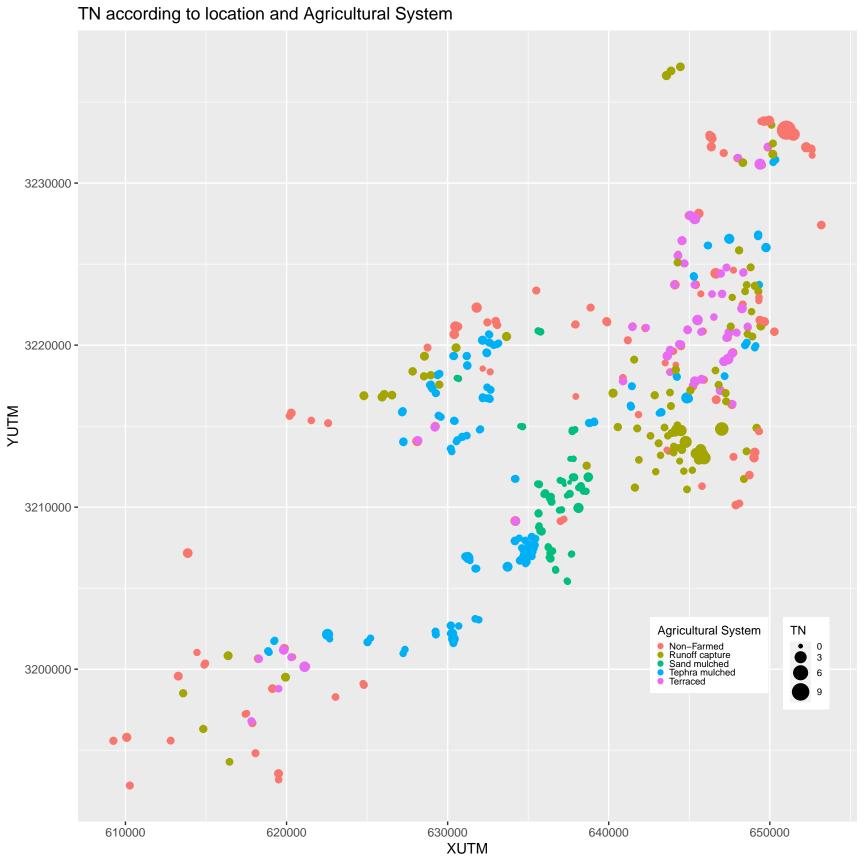


### Shapiro-Wilk test for normality

Shapiro-Wilk normality test

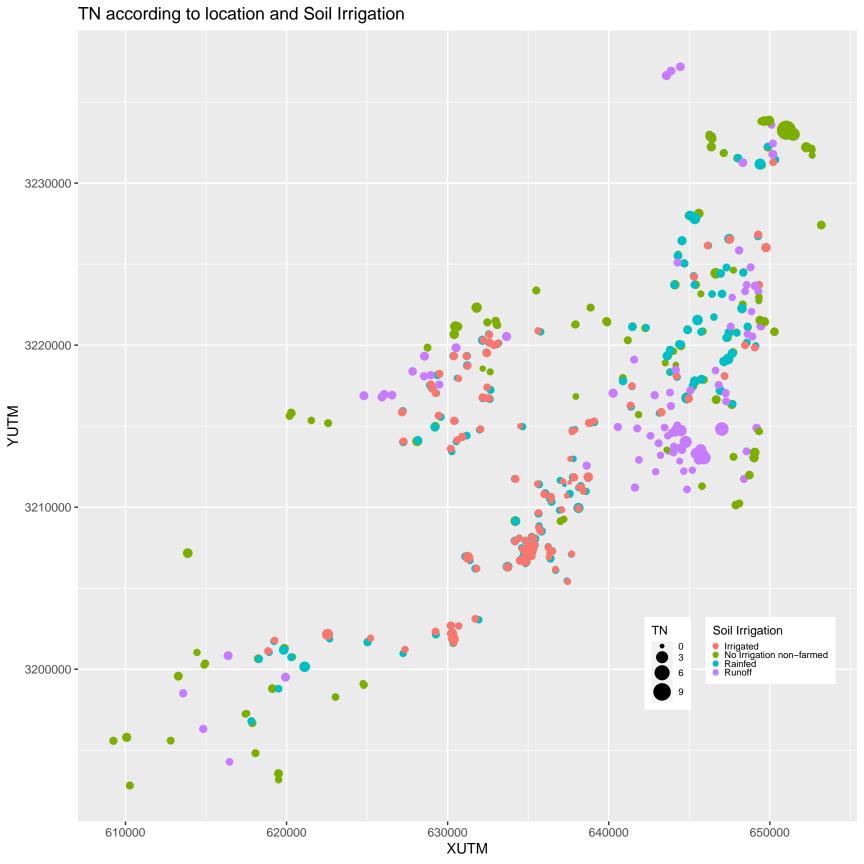
data: dataframe[, variable\_chr]

W = 0.428, p-value < 2.2e-16

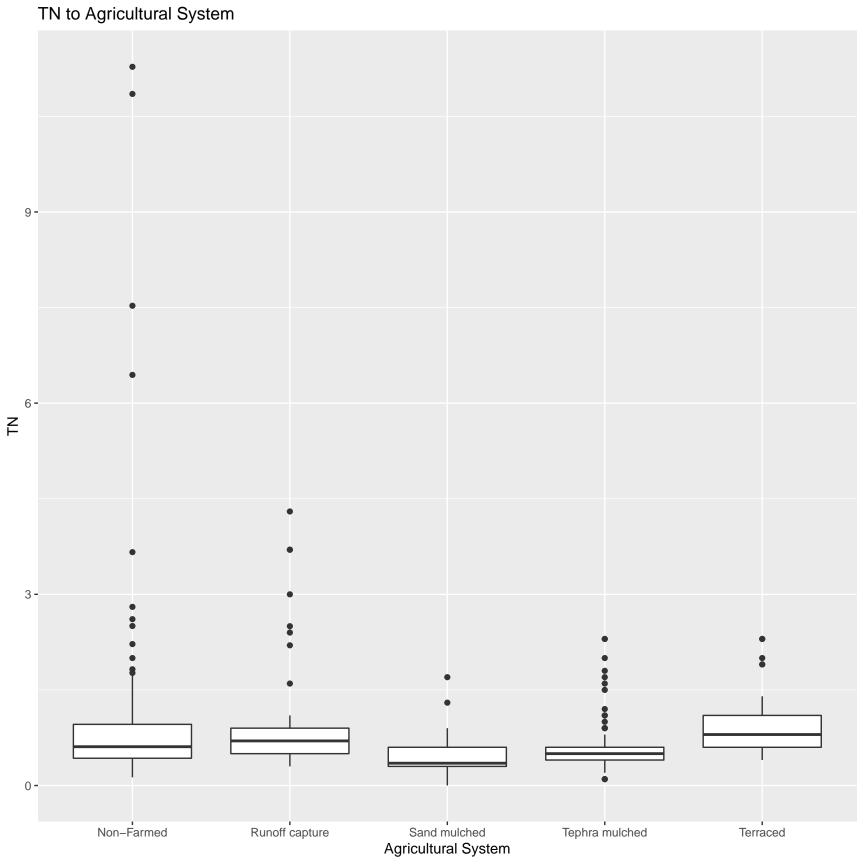


TN according to location and Soil Farming 3230000 -3220000 -3210000 -Soil Farming TN Farmed
Non-Farmed 3200000 -630000 XUTM 620000 610000 640000 650000

TN according to location and Soil Mulching 3230000 -3220000 -3210000 -Soil Mulching TN No mulch farmed No mulch non–farmed Sand Tephra 3200000 -630000 XUTM 620000 640000 650000 610000



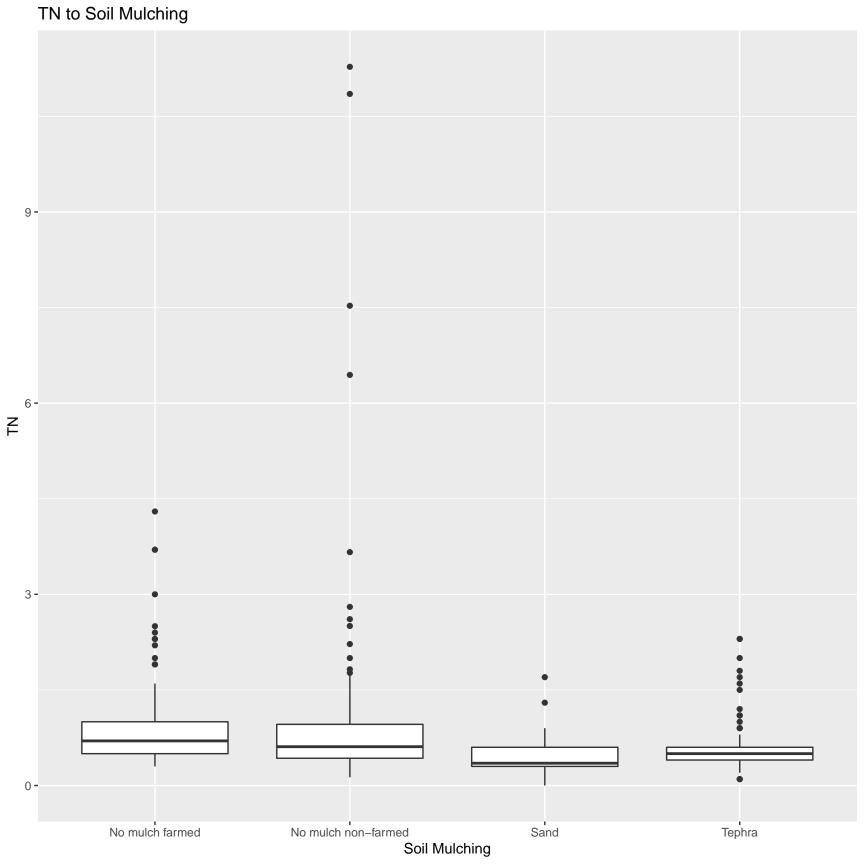




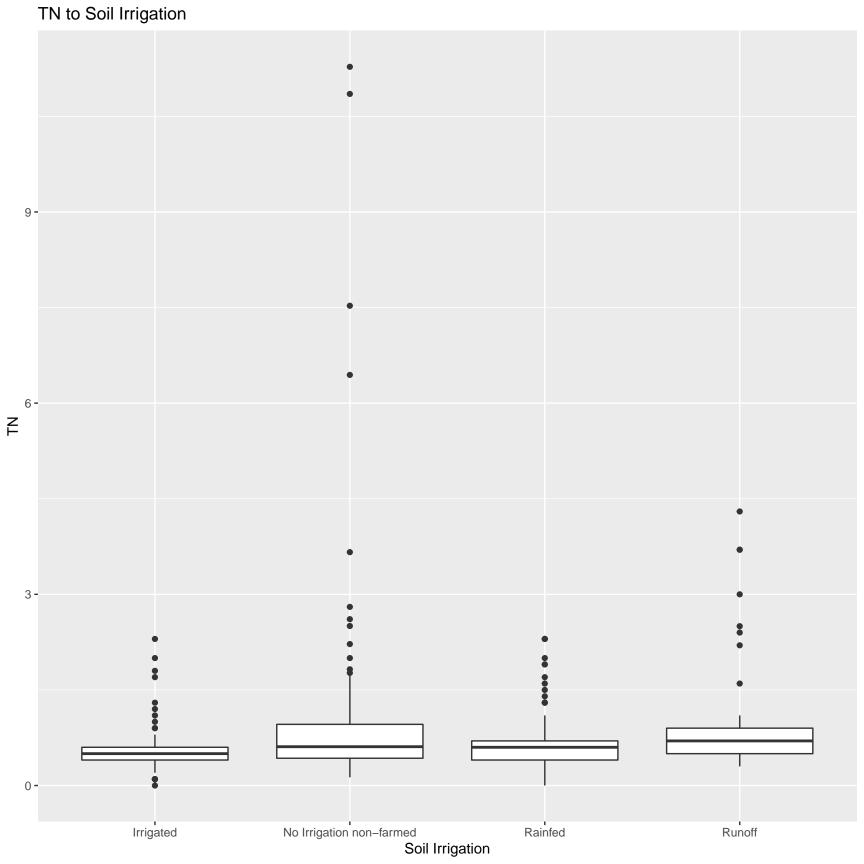
| .y.   | group1         | group2         | n1  | n2  | statistic | р        | p.adj    | p.adj.signif |
|-------|----------------|----------------|-----|-----|-----------|----------|----------|--------------|
| 1 TN  | Non-Farmed     | Runoff capture | 177 | 83  | 6597.0    | 1.85e-01 | 1.85e-01 | ns           |
| 2 TN  | Non-Farmed     | Sand mulched   | 177 | 60  | 7880.5    | 2.09e-08 | 1.46e-07 | ***          |
| 3 TN  | Non-Farmed     | Tephra mulched | 177 | 160 | 16819.0   | 3.00e-03 | 1.10e-02 | *            |
| 4 TN  | Non-Farmed     | Terraced       | 177 | 50  | 3248.0    | 4.00e-03 | 1.20e-02 | *            |
| 5 TN  | Runoff capture | Sand mulched   | 83  | 60  | 4104.5    | 2.95e-11 | 2.66e-10 | ***          |
| 6 TN  | Runoff capture | Tephra mulched | 83  | 160 | 9016.0    | 3.63e-06 | 2.17e-05 | ***          |
| 7 TN  | Runoff capture | Terraced       | 83  | 50  | 1615.0    | 3.20e-02 | 6.30e-02 | ns           |
| 8 TN  | Sand mulched   | Tephra mulched | 60  | 160 | 2875.0    | 3.61e-06 | 2.17e-05 | ***          |
| 9 TN  | Sand mulched   | Terraced       | 60  | 50  | 370.0     | 9.31e-12 | 9.31e-11 | ***          |
| 10 TN | Tephra mulched | Terraced       | 160 | 50  | 1833.0    | 5.10e-09 | 4.08e-08 | ***          |

TN to Soil Farming 9 -3 -0 -Non-Farmed Farmed Soil Farming

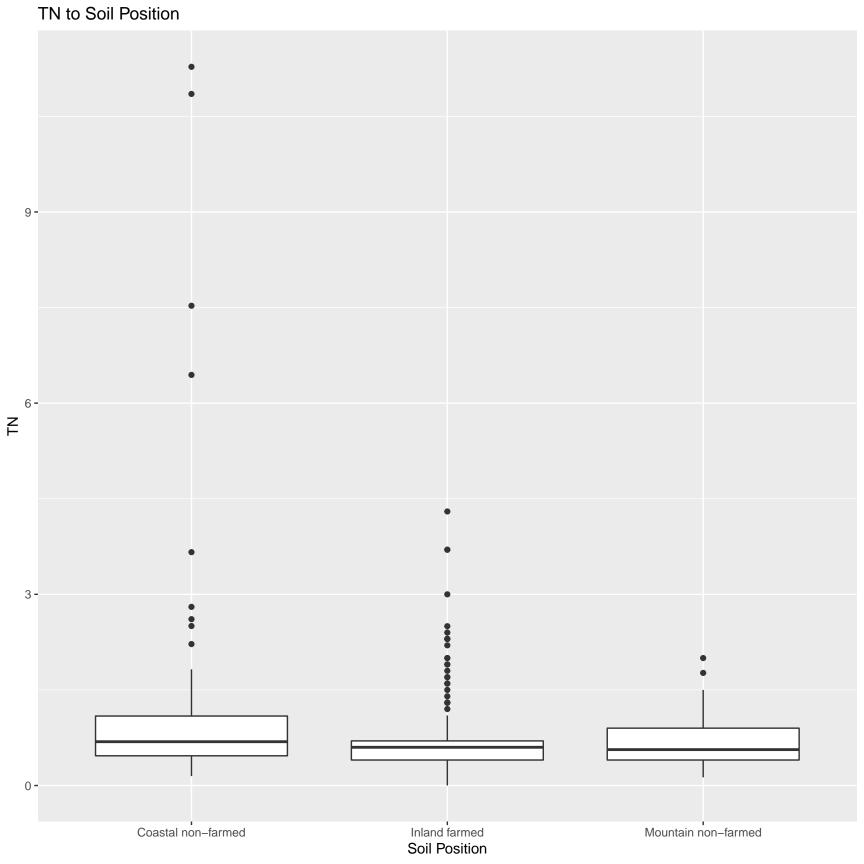
|   | .y. | group1 | group2     | n1  | n2  | statistic | р      |
|---|-----|--------|------------|-----|-----|-----------|--------|
| 1 | TN  | Farmed | Non-Farmed | 353 | 177 | 27936.5   | 0.0462 |



|   | .y. | group1              | group2              | n1  | n2  | statistic | р        | p.adj    | p.adj.signif |
|---|-----|---------------------|---------------------|-----|-----|-----------|----------|----------|--------------|
| 1 | TN  | No mulch farmed     | No mulch non-farmed | 133 | 177 | 13696.0   | 1.40e-02 | 1.40e-02 | *            |
| 2 | TN  | No mulch farmed     | Sand                | 133 | 60  | 6734.5    | 1.55e-14 | 9.30e-14 | ***          |
| 3 | TN  | No mulch farmed     | Tephra              | 133 | 160 | 15183.0   | 2.04e-10 | 1.02e-09 | ***          |
| 4 | TN  | No mulch non-farmed | Sand                | 177 | 60  | 7880.5    | 2.09e-08 | 8.36e-08 | ***          |
| 5 | TN  | No mulch non-farmed | Tephra              | 177 | 160 | 16819.0   | 3.00e-03 | 6.00e-03 | **           |
| 6 | TN  | Sand                | Tephra              | 60  | 160 | 2875.0    | 3.61e-06 | 1.08e-05 | ***          |



|   | .y. | group1                   | group2                   | n1  | n2  | statistic | р        | p.adj    | p.adj.signif |
|---|-----|--------------------------|--------------------------|-----|-----|-----------|----------|----------|--------------|
| 1 | TN  | Irrigated                | No Irrigation non-farmed | 110 | 177 | 7280.5    | 3.24e-04 | 2.00e-03 | **           |
| 2 | TN  | Irrigated                | Rainfed                  | 110 | 160 | 7390.0    | 2.40e-02 | 7.20e-02 | ns           |
| 3 | TN  | Irrigated                | Runoff                   | 110 | 83  | 2667.5    | 6.03e-07 | 3.62e-06 | ***          |
| 4 | TN  | No Irrigation non-farmed | Rainfed                  | 177 | 160 | 15758.0   | 7.30e-02 | 1.46e-01 | ns           |
| 5 | TN  | No Irrigation non-farmed | Runoff                   | 177 | 83  | 6597.0    | 1.85e-01 | 1.85e-01 | ns           |
| 6 | TN  | Rainfed                  | Runoff                   | 160 | 83  | 5007.0    | 2.00e-03 | 6.00e-03 | **           |



|   | .y. | group1             | group2              | n1  | n2  | statistic | р     | p.adj | p.adj.signif |
|---|-----|--------------------|---------------------|-----|-----|-----------|-------|-------|--------------|
| 1 | TN  | Coastal non-farmed | Inland farmed       | 91  | 353 | 19587.0   | 0.001 | 0.004 | **           |
| 2 | TN  | Coastal non-farmed | Mountain non-farmed | 91  | 86  | 4718.0    | 0.018 | 0.036 | *            |
| 3 | TN  | Inland farmed      | Mountain non-farmed | 353 | 86  | 15400.5   | 0.833 | 0.833 | ns           |