

# Physical Soil Properties

Benton County, Arkansas

[Entries under "Erosion Factors--T" apply to the entire profile. Entries under "Wind Erodibility Group" and "Wind Erodibility Index" apply only to the surface layer. Absence of an entry indicates that data were not estimated]

| Map symbol and soil name | Depth     | Sand       | Silt       | Clay       | Moist bulk density | Saturated hydraulic conductivity | Available water capacity | Linear extensibility | Organic matter | Erosion factors |     |   | Wind erodibility group | Wind erodibility index |
|--------------------------|-----------|------------|------------|------------|--------------------|----------------------------------|--------------------------|----------------------|----------------|-----------------|-----|---|------------------------|------------------------|
|                          |           |            |            |            |                    |                                  |                          |                      |                | Kw              | Kf  | T |                        |                        |
|                          | <i>In</i> | <i>Pct</i> | <i>Pct</i> | <i>Pct</i> | <i>g/cc</i>        | <i>micro m/sec</i>               | <i>In/In</i>             | <i>Pct</i>           | <i>Pct</i>     |                 |     |   |                        |                        |
| CnB:                     |           |            |            |            |                    |                                  |                          |                      |                |                 |     |   |                        |                        |
| Captina                  | 0-5       | 2-20       | 65-83      | 5-15       | 1.15-1.42          | 4.00-14.00                       | 0.21-0.24                | 0.3-0.9              | 2.0-5.0        | .43             | .43 | 3 | 5                      | 56                     |
|                          | 5-25      | 2-20       | 50-78      | 20-35      | 1.40-1.65          | 1.40-4.00                        | 0.17-0.22                | 1.2-2.4              | 0.3-1.0        | .43             | .43 |   |                        |                        |
|                          | 25-50     | 2-30       | 50-78      | 20-35      | 1.65-1.90          | 0.42-1.40                        | 0.02-0.07                | 0.0                  | 0.1-0.3        | .17             | .55 |   |                        |                        |
|                          | 50-79     | 2-40       | 20-60      | 35-70      | 1.30-1.65          | 1.40-4.00                        | 0.04-0.13                | 1.1-4.2              | 0.1-0.3        | .10             | .17 |   |                        |                        |
| Needleye                 | 0-7       | 5-20       | 60-75      | 15-25      | 1.30-1.50          | 4.00-14.00                       | 0.20-0.24                | 1.0-2.4              | 0.5-2.0        | .43             | .43 | 4 | 6                      | 48                     |
|                          | 7-25      | 5-20       | 50-70      | 25-35      | 1.30-1.50          | 1.40-4.00                        | 0.12-0.22                | 1.5-3.9              | 0.1-1.0        | .49             | .49 |   |                        |                        |
|                          | 25-50     | 5-20       | 50-70      | 20-30      | 1.60-1.90          | 0.01-0.42                        | 0.02-0.07                | 0.0                  | 0.1-0.5        | .55             | .55 |   |                        |                        |
|                          | 50-80     | 10-25      | 20-50      | 40-75      | 1.40-1.50          | 1.40-4.00                        | 0.03-0.09                | 1.6-11.1             | 0.1-0.5        | .05             | .17 |   |                        |                        |
| Nixa                     | 0-1       | ---        | ---        | ---        | 0.05-0.20          | 41.00-141.00                     | 0.00-0.03                | ---                  | 52-86          | ---             | --- | 4 | 7                      | 38                     |
|                          | 1-3       | 13-29      | 64-80      | 7-13       | 1.30-1.50          | 4.00-14.00                       | 0.08-0.14                | 0.2-0.8              | 0.1-4.0        | .24             | .55 |   |                        |                        |
|                          | 3-10      | 14-25      | 58-75      | 10-19      | 1.30-1.50          | 4.00-14.00                       | 0.08-0.16                | 0.4-1.7              | 0.5-1.0        | .17             | .64 |   |                        |                        |
|                          | 10-20     | 9-25       | 45-74      | 13-37      | 1.30-1.50          | 4.00-14.00                       | 0.07-0.12                | 0.3-2.2              | 0.1-1.0        | .28             | .64 |   |                        |                        |
|                          | 20-43     | 10-27      | 52-63      | 20-28      | 1.65-1.90          | 0.01-0.42                        | 0.03-0.08                | 0.0                  | 0.1-0.5        | .24             | .49 |   |                        |                        |
|                          | 43-80     | 2-16       | 3-42       | 43-92      | 1.35-1.45          | 0.10-1.40                        | 0.03-0.10                | 1.1-5.4              | 0.1-0.3        | .05             | .15 |   |                        |                        |