

Isothermal Belt ^[1]

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by Paul L. McCraw, 2006

The isothermal belt is a zone in western North Carolina, primarily in [Rutherford](#) ^[2] and [Polk](#) ^[3] Counties, in which temperature inversion resulting in milder temperature contributes to longer growing seasons than in the immediate surrounding region. The phenomenon usually occurs on the southern slopes of mountains and foothills protected from frost and freezing temperatures by higher mountains to the north and northwest. The temperature inversion, possible at any time, usually develops in the early spring. The condition is advantageous for tender plant life and early blooming trees as well as for the cultivation of fruit, especially apples and grapes.

In 1858 [Silas McDowell](#) ^[4] of Franklin coined the name "isothermal belt" based on the concept of the isotherm, a line on a weather map linking all points that have an identical mean temperature for a given time. Since then the term has been widely used and modified by scientists and area residents to sometimes exaggerate the advantages of the area. The names of [Thermal City](#) ^[5] in [Rutherford County](#) ^[2] and [Isothermal Community College](#) ^[6], which serves Rutherford and Polk Counties, are derived from this term.

Additional Resources:

Silas McDowell, NC Highway Historical Marker Q-50: <https://www.ncdcr.gov/about/history/division-historical-resources/nc-highway-historical-marker-program/Markers.aspx?ct=ddl&sp=search&k=Markers&sv=Q-50%20-%20SILAS%20McDOWELL%201795-1879> ^[7]

Subjects:

[Antebellum \(1820-1861\)](#) ^[8]

[Geography](#) ^[9]

[Weather](#) ^[10]

Authors:

[McCraw, Paul L.](#) ^[11]

Origin - location:

[Polk County](#) ^[12]

[Rutherford County](#) ^[13]

From:

[Encyclopedia of North Carolina, University of North Carolina Press.](#) ^[14]

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