

### Reineke Stocking Charts

This type of charts are often used to describe the relationships of mean tree size and density. These include Density Management Diagrams (often called -3/2 rule diagrams).

#### Density Management Diagrams

These diagrams date back to Reineke (1933) work on the stand density index and relationship of log quadratic mean diameter (QMD) and log density. Drew and Flewelling (1979) popularized the relationship in the western states using a log mean volume to log density diagram. Long (1985) suggested that a much more practical approach was to use log mean diameter and log density as both could be easily estimated in the field. Schnur (1937) suggested a maximum Stand Density Index of 230 for upland oak forests.

#### Also see:

**Drew, T. J. and J. W. Flewelling.** 1979. Stand density management: an alternative approach and its application to Douglas-fir plantations. *For. Sci.*25:518-532.

**Husch, B., C. I. Miller and T. W. Beers.** 1993. Forest Mensuration. Third Edition. Krieger Publishing Co., Malabar, Florida 402 p.

**Kershaw, Jr, J. A. and B. C. Fischer.** 1991. Maximum size-density relationships for sawtimber-sized mixed upland central hardwoods. In: "The 8th Annual Central Hardwoods Conference", L. H. McCormick and K. W. Gottschalk eds. *USDA, Forest Service, Northeastern Forest Experiment Station, General Technical Report*, NE-148, pp. 414-428.

**Long, J. N.** 1985. A practical approach to density management. *Forestry Chronicle* 61:23-27.

**Reineke, L. H.** 1933. Perfecting a stand density index for even-aged forests. *Jour. Agric. Res.* 46:627-638.

**Schnur, L.** 1937. Yield, stand, and volume tables for even-aged upland oak forests. *USDA Technical Bulletin* No. 560, 87 p.

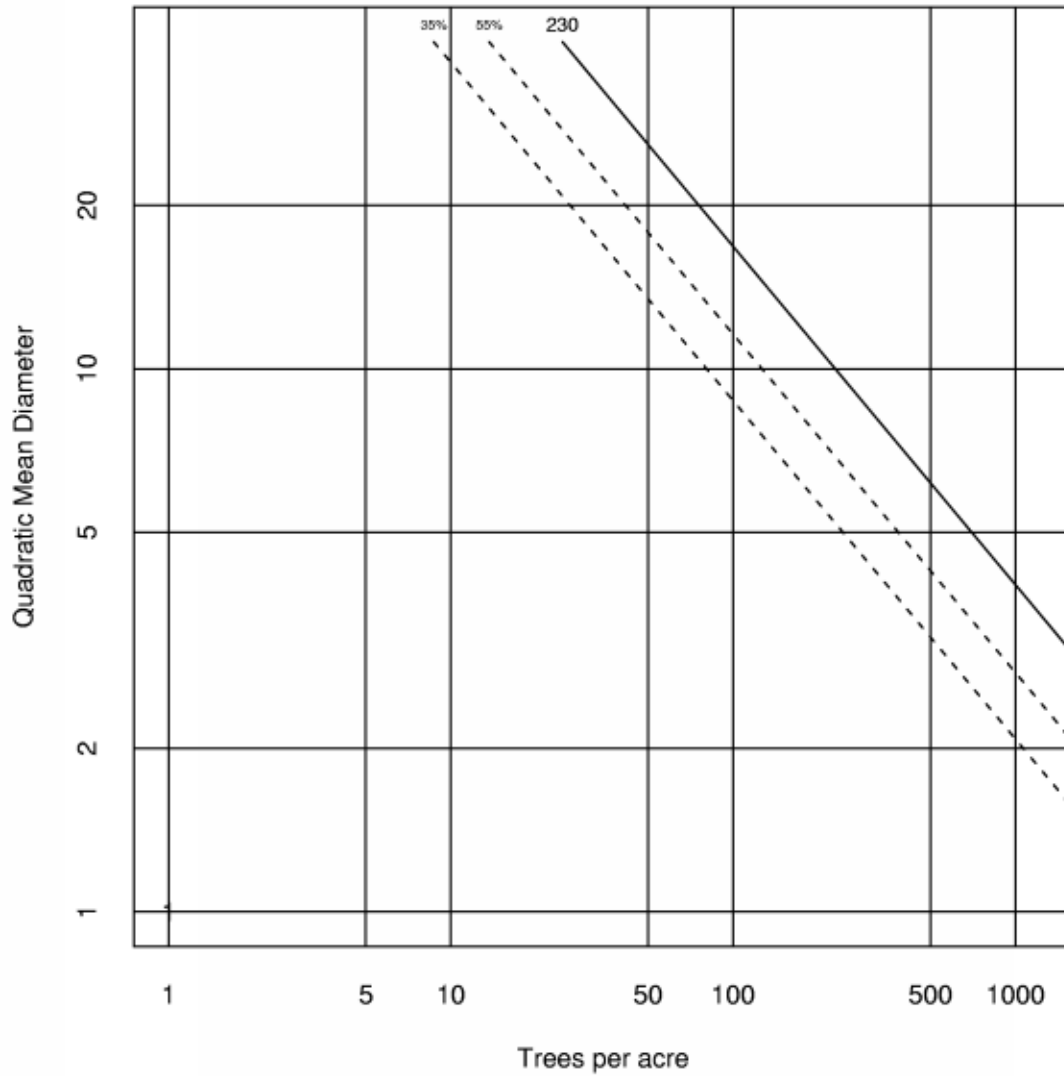


Figure 1 Reineke Stocking Chart for Upland Oak-Hickories in the Central States.