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This map displays the center pivot irrigation systems in use in Whiteside County, Illinois during the 2012 growing season. The Sankoty Aquifer occupies the ancestral Mississippi River Valley, which underlies the southern half of Whiteside County. Soils in the southern part of the county are commonly sandy and require irrigation, for which the Sankoty is the primary water source.

A. Center pivot irrigation imprints identifiable circular patterns on the landscape which can be visible in aerial images. The USDA collects aerial images during the crop growing season through the National Agricultural Imagery Program (NAIP) and makes them available through the USDA Geospatial Data Gateway. Images used for this research were collected by the USDA between June 1 and July 3, 2012, and accessed on January 15, 2013.

B. The NAIP images were examined for circular irrigation patterns, and field boundaries were traced to create a map layer. A total of 606 center pivot systems were identified in Whiteside County during the summer of 2012, representing 60,122 acres of farmland.

USDA (2007 NASS Census) reported 405,333 total acres of farmland in Whiteside County, suggesting that center pivot irrigation is used in approximately 15 percent of all farmland in this county.





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~~~ River/Stream

- Thterstate Highway
- U.S. Highway
- State Highway
- County Highway



Funding was provided in part by The Illinois Department of Natural Resources. The technical content of the map is the responsibility of the authors. The user assumes all liability for the interpretation and use of the map. Map compiled by Karen Bridges. Projection: Lambert Conformal Conic.

Sources: USDA Geospatial Gateway, https://datagateway.nrcs.usda.gov USDA National Agricultural Statistics Service, www.nass.usda.gov Burch, Stephen L. 2004. Groundwater Conditions of the Principal Aquifers of Lee, Whiteside, Bureau, and Henry Counties, Illinois. Illinois State Water Survey, Champaign, IL. [Figure 9, p.23]. http://www.isws.illinois.edu/pubdoc/DCS/ISWSDCS2004-01.pdf

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## 2012 Center Pivot Irrigation in Whiteside County, Illinois Illinois State Water Survey



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