The Blandy Experimental Farm

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The Blandy Experimental Farm (BEF) is a field station operated by the University of Virginia since 1927. It is located at 39° 03.8' N 78° 03.9' W at an elevation of 182 m. The 260-hectare property comprises habitats that are typical of the rural Shenandoah Valley in which it lies. These include fields that are actively being farmed (pasture or hay), early successional habitats ranging in age from 3-19 years since last disturbance, and well established second-growth forest (approximately 100 years in age). An ephemeral wetland runs through the center of the property with water impounded in several small man-made ponds and one natural spring. The Orland E. White Arboretum occupies 60 hectares near the center of the property. At the center of the Arboretum is a 35-acre meadow planted in native C4 grasses and wildflowers.

Mean annual high and low temperatures at Blandy are 18° C and 5° C, respectively. The growing season spans an average of 157 days. Total annual precipitation averages 95 cm, with 60% of precipitation falling from April through September. Ordovician-age dolomite limestone underlies the station, producing a rolling, karst topography with frequent limestone rock outcroppings and sinkholes. Soils in the Shenandoah Valley form from weathered limestone, shale, and siltstone. Slopes generally are of less than 10%. Drainage at Blandy is primarily subterranean.

Blandy maintains 13 buildings totaling more than 32,000 ft^2. Housing facilities for visiting researchers include dorm rooms in the Quarters building that accommodate as many as 28 residents, two 2-bedroom cottages for visiting senior researchers (6 beds per unit), and a farm house providing dorm-style housing for up to 10. The Quarters provides office space for staff and faculty and houses a 1,400 ft^2 research laboratory and a computer lab. Blandy has a T internet connection and both a fiber optic and wireless internal network. A website for researchers and the public is maintained at: (www.virginia.edu/blandy).

Vehicles, equipment, and tools are available to assist researchers. A new (2006) data-logging meteorological station updates weather data online every hour and data with 5 minute resolution is available to all researchers. A 10-m instrument tower to study plant-atmosphere gas exchange (carbon dioxide and water vapor flux) has been operating since 1999 and is part of the global FLUXNET network. Ground water has been monitored by the USGS since 1987, and real-time updates are provided by satellite link and can be viewed at their website.