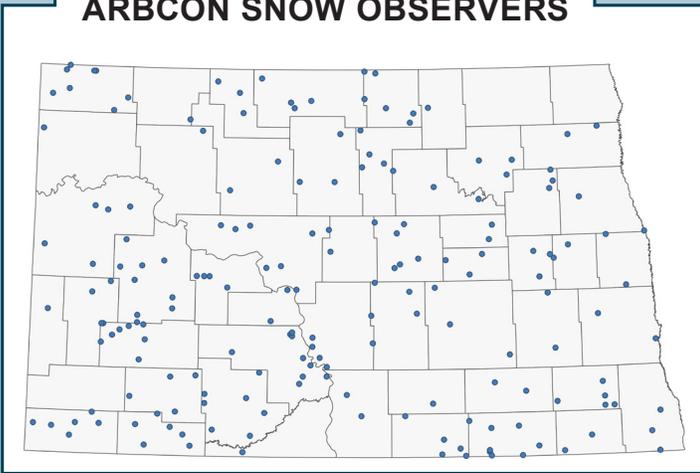


THE ATMOSPHERIC RESERVOIR

Examining the Atmosphere and Atmospheric Resource Management

SNOW OBSERVERS WANTED

ARBCON SNOW OBSERVERS



By Mark D. Schneider

If you're looking for something to do this winter, happen to live in a spacious area, and don't mind a morning walk outdoors, then snowfall reporting for the Atmospheric Resource Board Cooperative Observer Network (ARBCON) just might be your "cup of tea." There are currently 185 ARBCON snowfall observers (thank you very much for volunteering) and as you can see from the map, observation sites are spread out over our state and include many of our more rural areas. Each observer is given an official rain gauge with three parts: the main cylinder that snow is collected in, a smaller tube that fits inside and is used to measure the amount of liquid water either from melted snow or rain, and a funnel cap that goes over the main cylinder during the growing season when conditions are warmer.

During the months between October and March, ARBCON observers remove the funnel cap and smaller tube and bring those inside for measuring the melted snow that collects within the main cylinder left outside. This main cylinder is

made of thick, durable plastic and can withstand the bitter cold and weather conditions that North Dakota receives. Every morning (that an observer is available to take an observation), the main cylinder is either brought indoors where the snow can melt and be measured through the funnel and smaller tube, or a known amount of warm tap water is added to the snow to accelerate the process so that the main cylinder can be immediately placed back outside to collect more snow. Detailed measurement instructions are provided.

The ARBCON observer then has the option to either report through the Internet with an assigned site identification number and password, or write the observation down on a postcard and drop it in their mailbox at the end of the month.

When siting a rain gauge on your property, it's important to place it in an area that is twice the distance from the height of the nearest object. An example would be a farmyard that has a 30 foot tall barn and mature tree rows that are 50 feet tall: you would want to site your rain gauge at least 60 feet from the barn and 100 feet from the tree rows so that snowfall wasn't blocked or changed from what would naturally fall in that location.

By observing snowfall and taking monthly snowpack water measurements, ARBCON observers are helping forecasters make more accurate predictions regarding spring flooding conditions across our state. This is the most important and immediate use of the snowfall data. Once thirty years of precipitation data are collected (both rain and snowfall), a climatology for that particular site is created. We refer to this climatology of observations as the "normal" and make many comparisons to it. If you're up for the challenge of measuring snow this winter (and rainfall next growing season if you enjoy it), you can call: 1-800-654-5981, email: dabrothers@nd.gov, or check out the website at www.swc.nd.gov/arb/ndarbcon/.

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