BORON has been termed a “minor element” because of its requirement in relatively small quantities, but according to Naftel (8) it could be considered a major element from the standpoint of plant nutrition.

Although the necessity of boron in plant growth was discovered by Maze in 1914, it was in 1931 that Brandenburg directed the attention of agriculturists to its use as an artificial fertilizer by showing that under field conditions its deficiency was the cause of heart rot and dry rot in sugar beets.

As far as is known, the first record of boron deficiency under field conditions in the United States was in Maryland where it was found to produce characteristic symptoms on tobacco plants. This was reported in 1935 by McMurtrey (7). From 1936 to 1938 the fertilizer action of boron was being recognized, and during this period approximately 350 investigations were reported (8). Investigators in many states, including Alabama, California, Connecticut, Florida, Georgia, Maine, Maryland, Massachusetts, Michigan, New Jersey, New York, North Carolina, Ohio, Oregon, Pennsylvania, South Carolina, Vermont, Washington, and Wisconsin, have to date reported response to boron fertilization.

Several excellent reviews of the literature and relatively complete lists of references dealing with the effects of boron on several plants have been compiled by Dennis (3), Dennis and O’Brien (4), Willis (10), and by the American Potash Institute (1).

In 1936, McLarty (5) in Canada showed that boron was the substance effective in preventing drought spot and corky core in apples. Further work in Canada by McLarty, Wilcox, and Woodbridge (6) showed that a certain type of alfalfa yellowing was caused by a lack of boron and that it could be overcome by the addition of either boric acid or borax.

These investigations called attention to the possibility of a similar problem in northern Idaho, for it had been noted for a number of years that certain fields of alfalfa in that area were showing a similar yellowing.