



# ALBION®

*Metalosate® Plant Nutrition News*

**A Compilation of Technical Information and Essential Plant Research Projects**

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## Lettuce and Cabbage Research Projects in Denmark

### *International Project*

As you probably are aware, Albion Advanced Nutrition is an international company doing business in many parts of the world. Many of the European countries require extensive efficacy tests to be completed prior to granting registration for products to be used in that country. As a result, it is necessary for Albion to perform or pay to have research performed in those areas.

Winnie Olsen is employed by our distributor in Denmark—Brenntag Nordic Agro. In the 2003 growing season she performed several research projects in Denmark using the Metalosate® products.

One trial was performed on Romaine lettuce grown in a greenhouse. Denmark has a big problem with tipburn on the leaves; and if a plant has tipburn, it is unmarketable. They hypothesized that applications of Boron and Calcium could aid in reducing tipburn. Plants were treated when they had 4-5 rosette leaves. The rate applied was 27 oz./acre (2 liters/hectare) of Metalosate Calcium and 3.4 oz./acre (0.25 liters/hectare) of Metalosate Boron.

Applications were made three times on a seven-day interval.

### *Healthy Romaine Lettuce*

The result was a complete elimination of tipburn in the treated plants, while 57% of the untreated plants exhibited tipburn.



### *Healthy Romaine Lettuce*

This is quite a remarkable reduction and well worth the applications.

In another project, Winnie looked at trying to reduce both internal and external tipburn on red cabbage. There is little tolerance for internal tipburn in Denmark, if 6 out of 10 heads have internal tipburn, the whole load will be rejected. The only way to know if a head has internal tipburn is to cut the head, so it is extremely beneficial to prevent the problem rather than try to deal with it later.

Metalosate Calcium was applied three times at a rate of 20 oz./acre (1.5 litres/hectare) every seven days on 4 plots with 10 heads in each plot treated. The results (below) represent a very good reduction in the number of heads with tipburn disorders.

### **Denmark Red Cabbage Trial**

#### **Percent with External Tipburn**

Untreated 27.5%

Metalosate® Calcium 10.0%

#### **Percent with Internal Tipburn**

Untreated 27.5%

Metalosate® Calcium 17.5%

This work has carried over to lettuce applications in the US. We have projects underway with the University of Arizona on Lettuce. Growers in the US have found that applications of Metalosate Calcium have significantly reduced incidence of lettuce tip burn. Lettuce grown and processed into pre-cut salads treated with Metalosate Calcium has a much better presentation in the bag and an increased shelf life due to significant reduction of tipburn.

On a final note: "The race for quality has no finish line" ☺

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