



# VERMICULITE EXECUTIVE REPORT

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## **Excess sodium poses problems for commercial growers**

Some vermiculite can contain high levels of sodium, and this can cause numerous problems for commercial horticultural growers.

For example, a *Horticulture Update* from the Texas Cooperative Extension, Texas A&M University, notes that a buildup of sodium in the soil can make plant root growth difficult.

According to Texas A&M, "When sodium concentrations in the soil get too high, clay in the soil may become dispersed...thus releasing the clay particles to move through the soil and concentrate in a single dense layer. Frequently this layer of dispersed clay is so dense that the movement of water oxygen is severely limited and roots find it difficult to penetrate the layer."

Note: Certified laboratory testing has proven IBI's Premium Namekara Golden Vermiculite to be very low in horticulturally undesirable mineral elements, such as sodium, and to be a good source of nutritionally important mineral elements such as magnesium.

## **IBI vermiculite resource featured in publication on Uganda minerals**

Details about IBI's exceptional quality Namekara vermiculite deposit in Uganda are highlighted in a recent 68-page full color publication on Uganda's minerals resources. The publication also featured photos showing outstanding corn root growth obtained with IBI's newly developed, vermiculite-based V.Gro fertilizer. A pdf version of the publication can be downloaded or read online at [www.africamining.com](http://www.africamining.com)

## **Vermiculite & fresh salads in Antarctica**

Vermiculite used in hydroponics has enabled scientists at Australia's Mawson Station, Antarctica, to enjoy fresh-grown vegetables despite a "white desert" climate ranging from 0 deg centigrade in "summer" to minus 30 deg centigrade in "winter."

Using vermiculite and perlite for the hydroponics growing medium, Mawson Station crews are regularly enjoying such treats as: lettuce, basil, cucumbers, spring onions, radishes, baby beets, butter beans and herbs. The lettuce, as an example, is maturing in four weeks.

The hydroponics growing area is in an insulated, heated plywood building

Source: *Practical Hydroponics & Greenhouses*.

## **Grit in vermiculite shipments can be costly for expanders**

The presence of inordinate levels of foreign material, or grit, such as small stones, in received vermiculite shipments can pose a three-point problem for the expander.

At the outset, high grit or foreign matter content means that less vermiculite per tonne is available for exfoliation than is being paid for. Moreover, to separate out excessive grit costs time and money, but to leave the grit in the ore concentrate frequently leads to damage to the furnace interior.

Grit levels of as high as 12% are not uncommon in some suppliers' shipments, IBI has been told.

Note: This problem can be avoided by using IBI's Premium Namekara Golden Vermiculite, which contains minimal grit or foreign matter.

### **“Our man in Uganda”**

In consistently satisfying the high expectations of IBI's customers, the Company's “Man in Uganda,” Hans Hansen, plays a major role. As managing director of Canmin Resources Limited, IBI's wholly-owned subsidiary, Hans and his team are responsible for all aspects of quality control, mining, and shipping. Hans has been a driving force in establishing IBI's Namekara Vermiculite Mine and bringing it to operational success.

Although born in Denmark, he has lived in Africa for 45 years and has extensive managerial and entrepreneurial experience, including being mine manager of the Shawa Vermiculite Mine in Zimbabwe. In addition Hans has managed several large commercial farming operations.

Hans' unique view of the world can be read in his book, *The Deafening Silence*.

### **Using vermiculite in Brussels sprouts seeding and cultivation**

A guide from Oregon State University (“OSU”) suggests that in greenhouse transplant production, Brussels sprouts can be started by broadcasting seed into flats containing a mixture of peat and vermiculite and then transferring individual plants into other flats when the first true leaves have formed.

OSU does not recommend direct seeding for Brussels sprouts because of the cost of seed and time required to reach harvest. However, if direct seeding is chosen, OSU suggests using vermiculite as an anti-crustant, or the use of solid-set irrigation to keep the soil moist and prevent crusting.

### **Vermiculite medium for growing fruit crops in containers**

A wide variety of fruit crops can be grown in containers, according to the Institute of Food and Agricultural Sciences, University of Florida.

Noting that tropical and subtropical fruits can be grown in containers in areas where freezes might occur, the University says that fruit harvests can be produced with proper care.

A recommended growing medium is one part vermiculite, one part sand, and one part peat.

### **IBI Survey Question:**

#### **Is our industry aggressive enough in promoting to consumer gardeners?**

It has been suggested by some that our industry is missing a big sales opportunity by not promoting vermiculite more effectively to the consumer gardening market.

IBI believes there is indeed huge potential for growing the vermiculite market in the consumer gardening sector, but we also feel that capitalizing on the upside will require a concentrated marketing effort by the entire industry.

What is the consumer interest in gardening and how big a market is gardening? On just one Internet search engine alone, namely Yahoo, there are 224,000 searches per month on the single search word of “gardening.” On the niche topic search words of “container gardening” there are upwards of 10,000 searches per month. And this is just one search engine; there are hundreds of them on the Internet.

Businesses are responding to this consumer need for gardening information by providing editorial content, products and services to this market -- Google lists 124 million web pages supplying information on the topic of gardening.

IBI conservatively estimates the untapped market for vermiculite at the consumer level in North America alone to be worth more than \$1 billion.

IBI would be interested in receiving readers' views on whether a strong industry-wide branding program for vermiculite could help tap into this potential.



**To learn more...**

If you would like more information about the unparalleled qualities of Namekara Premium Golden Vermiculite and IBI's unique services package, please contact:

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**Ten reasons to use Premium Namekara Golden Vermiculite**

1. Rich golden colour
2. High cation exchange rate
3. Thin flakes mean lower exfoliation costs and more volume per tonne
4. Pleasing cuboidal shape after exfoliation
5. Minimal grit
6. Excellent chemical composition for horticulture and agriculture --e.g. low sodium, high magnesium and other beneficial trace minerals
7. Grade availability: abundance of medium and large
8. A proven one-hundred-year supply at current production levels
9. Flexible shipping arrangements
10. Exfoliates at lower temperature, thus saving on fuel costs