# Innovation Without Boundaries®





# **About Us**

BRANDT iHammer is a joint venture between BRANDT and Innovation Hammer, LLC. The company's mission and tagline, Innovation Without Boundaries, reflects the company's focus on plant health research and technology.

BRANDT iHammer is led by Mike McBride, President, and Dr. Arthur Nonomura, Chief Science Officer. Mike has over 35 years of experience in the turf industry. Dr. Nonomura and the late Dr. Andrew A. Benson spent decades conducting plant health research at University of California that led to the discovery of the relationship of plant nutrition to glycoregulation.

One of the most highly renowned scientists of the 20th century, Dr. Benson was a world leader in the field of photosynthesis. Both Dr. Nonomura's and Dr. Benson's works in carbon fixation, plant lectin cycle, and plant energy production have been published in many prestigious science journals, including the Journal of Plant Nutrition.

Through this joint venture, BRANDT iHammer has been able to manufacture and commercialize new plant health technologies to improve fertility, photosynthesis, carbohydrate content and energy flow. These technologies give course managers new products that maximize plant health and minimize plant stress during periods of adverse environmental conditions and abiotic stress.

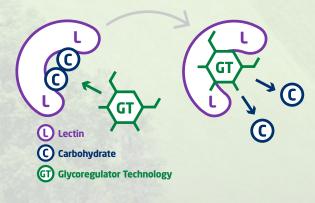
# BRANDT iHammer: Patented Glycoregulator Technology

The science behind BRANDT iHammer is based on glycoregulation in the field, i.e., BRANDT iHammer added the nutritional interaction of carbohydrates in the Plant Lectin Cycle to the grower's tool chest. Lectins have an affinity to bind carbohydrates and we saw that was a problem because it made energy-packed nutrition unavailable to the plant for photosynthesis and metabolism.

BRANDT iHammer's technology solves this issue, by preventing lectins from binding those carbs. BRANDT iHammer formulations "unlock and release" carbs off of lectins. Now, the plant is able to access more carbohydrates for use in key life processes.

The end result is our glycoregulator technology that makes more nutrition and energy available to stimulate root and top growth, while keeping turf resilient under environmental stress conditions.

#### **BRANDT iHammer Unlocks and Releases Carbs**



BRANDT iHammer Increases Nutritive Energy Flow to Photosynthesis and Respiration





# **BRANDT iHammer Formulations**

Three formulations are currently available for turf and ornamentals.

- They contain patented glycoregulator technology;
- Feature high quality, stable and readily available nutrients;
- Are compatible with most fertilizers, pesticides and adjuvants

# **MegAleX**<sup>®</sup>

#### 3-0-0

#### Derived from urea

Recommended for golf greens to give turf extra support from heavy foot traffic and play. Helps build vibrant, high performance turf, encourages root growth and promotes vigor in shade areas. For flowering ornamentals, this formula encourages bud and bloom. Provides a stable, readily available source of nitrogen that resists soil tie up. Does not contain phosphate. Advances fertility.

#### **Advantage**<sup>®</sup>

#### 5-0-1 0.05% B 0.75% Mn 0.001% Mo 0.75% Zn

Derived from potassium nitrate, urea, sodium borate, manganese EDTA, sodium molybdate and zinc EDTA

Recommended for all golf turf areas, sports turf, landscape and ornamentals. Contains a robust nutrient package to correct deficiencies and improve turf health. Advances fertility.

#### **Upplause**<sup>®</sup> **Plus**

#### 10-0-0

Derived from ammonium sulfate and urea

Recommended for fairways, sports turf, and landscaping. Contains a stable, readily available source of nitrogen that resists soil tie up and helps build strong, vibrant turf that can stand up to environmental stress. Excellent for turf establishment and turf strength. Advances fertility.

# MegAleX on Creeping Bentgrass Green

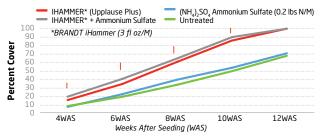
#### Tamarack Ridge GC, Ontario, Canada

MEGALEX applications at regular intervals are recommended prior to the onset of environmental stress to maintain optimal turf performance. A minimum of three (3) sequential applications are recommended. MEGALEX increased root mass and improved turf health, color and quality.



#### **Upplause Plus on TifTuf Establishment** Henry, 2016

The establishment of turf treated with BRANDT iHammer UPPLAUSE PLUS advanced fertility better than the check and turf treated with ammonium sulfate.



#### MegAleX Drought Stress Trial Dempsey, 2018

MEGALEX applied every 2 weeks during Drought Stress Trial. MEGALEX treated plots improved annual bluegrass root growth and development.



#### Advantage Applied to Day Lily Matt Meadows, OH

Daily, plants lose 3-6 hours of productivity due to midday wilt,

BRANDT iHammer's technologies help mitigate plant stress.



#### **BRANDT iHammer**

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BRANDT iHammer is a joint venture between BRANDT and iHammer, LLC. For more info. on BRANDT, visit www.brandt.co

