

# SG - Turf

2023



BIOLOGICALS TECHNOLOGY FOR TURF



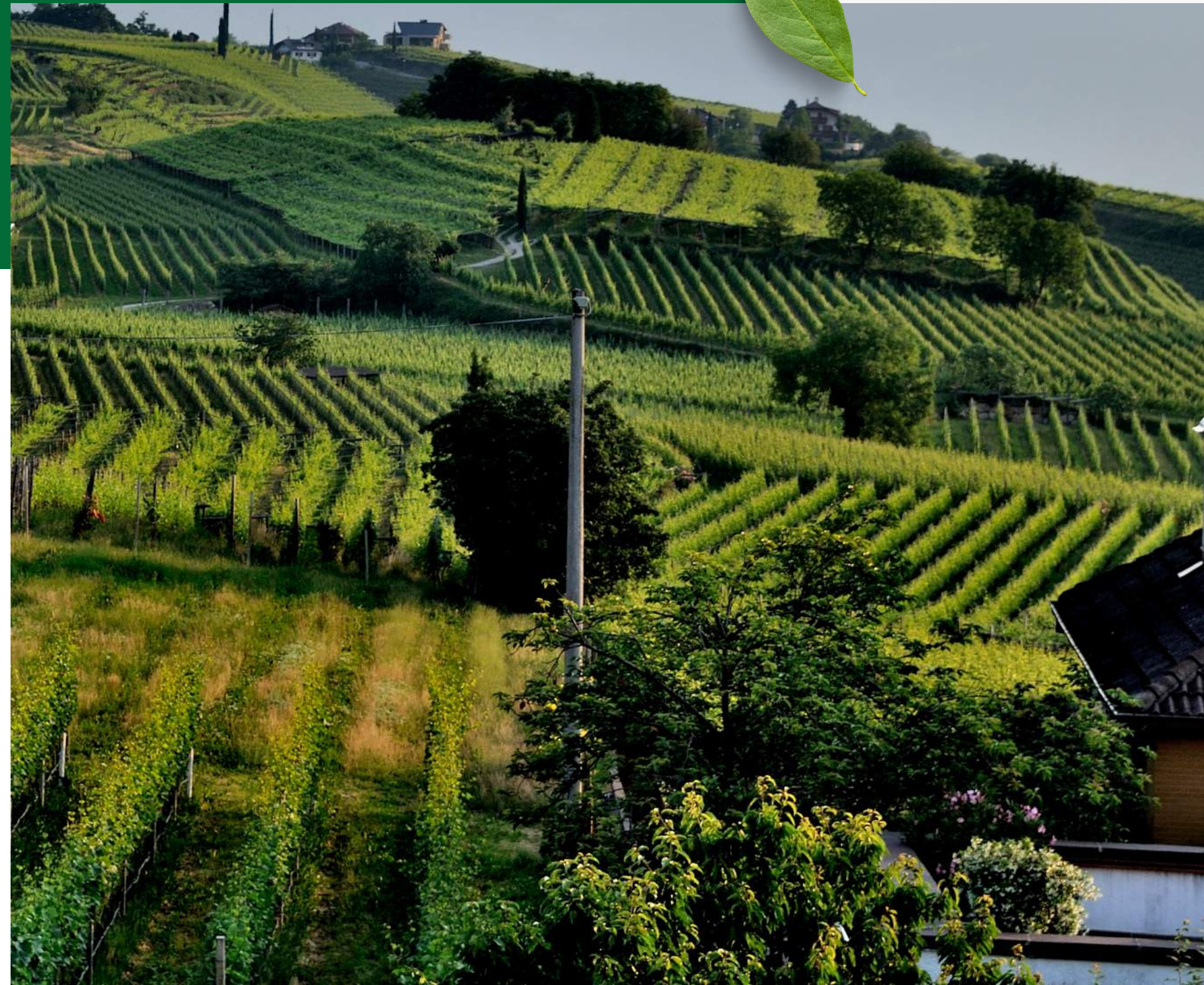


# About SG

For Your Harvest

We specialize in the distribution of eco-friendly, commercial-grade biological and natural soil and plant technologies (fertilizers, herbicides) with applications in agriculture, nurseries, horticulture, home gardens, landscaping, groundskeeping and cemeteries, golf courses, sport fields.

We believe that it all starts from the soil. Healthy soil with a rich micro-organism ecosystem can help plants, flowers, and turf fight against most diseases and pests.





# Turf Greens

Intensively used greens endure great stress  
(Abiotic stress)

With expert care and treatment and the correct fertilization, turf's:

- growth conditions
- strength and resistance capabilities
- soil health

are improved and alleviate potential wear & tear damages.







# Problems

- Drought stress
- High water costs / Water unavailability
- Diseases
- Wear and tear
- Nutrients shortage or excess nutrients





# Our Solution

- Improvement and acceleration of root growth,
- Improvement of nutrition and water uptake
- Improvement of shoot development and leaf mass

## → SG PRODUCTS CAN PRODUCE

- ✓ Higher density
- ✓ Better color
- ✓ Greater homogeneity
- ✓ Healthier turf and soil







**Does it work?**

**see the results...**



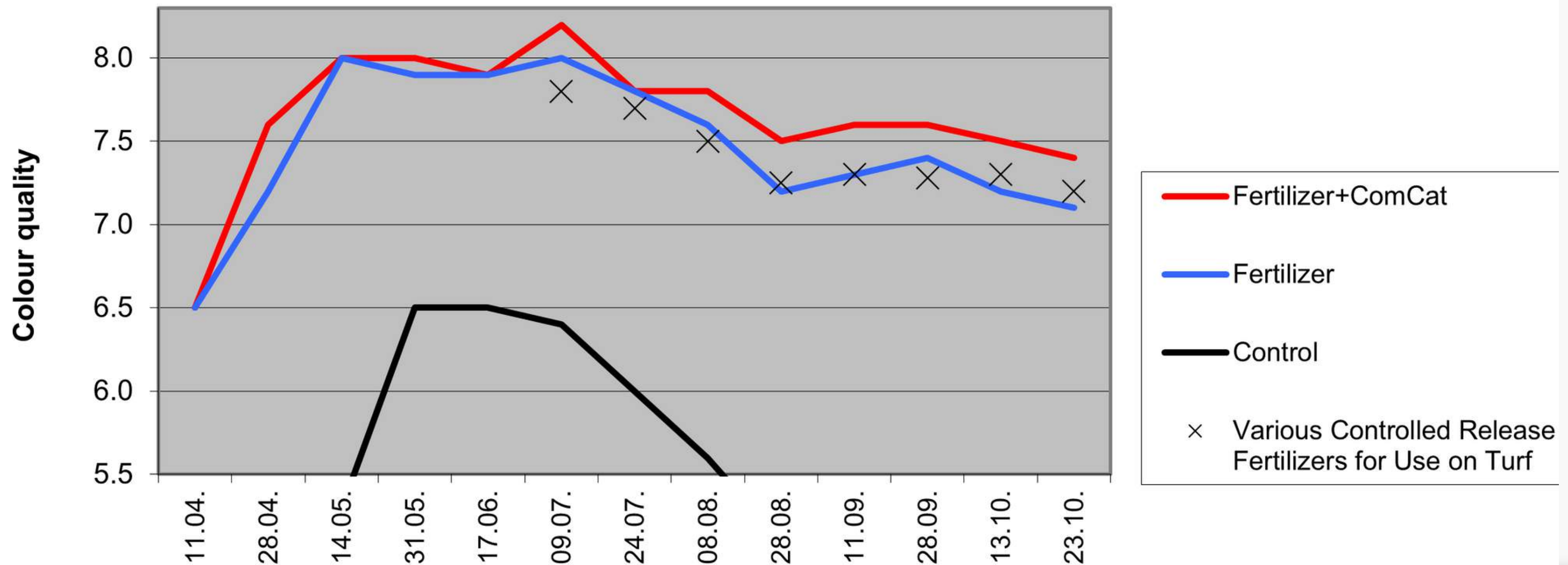


# Professional Turf Ground Trial with Different Growth Media





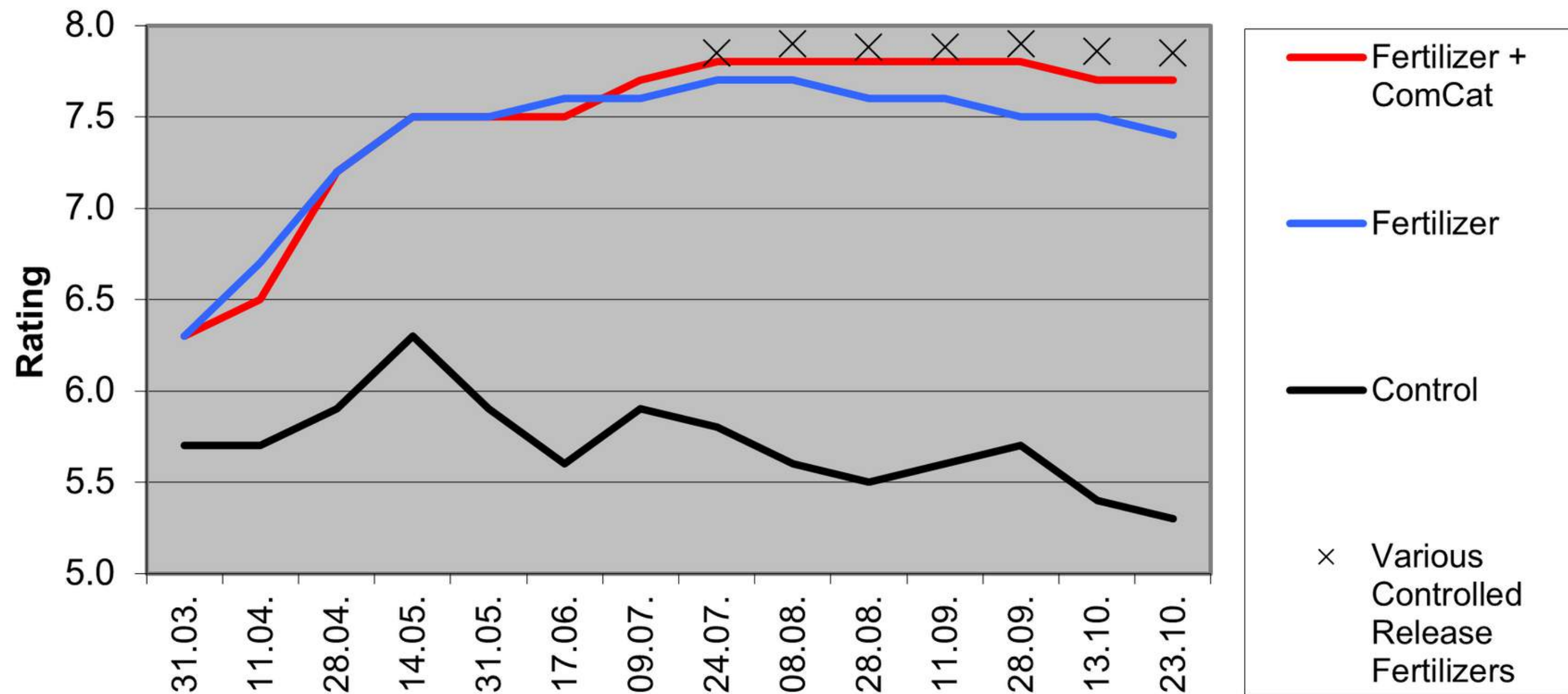
# Quality of Color



Quelle: Zhang, 2005: The Evaluation of Various Controlled Release Fertilizers for Use on Turf \* = data point with significant differences in fertilizers (GD5%)



# Quality of Density



Quelle: Zhang, 2005: The Evaluation of Various Controlled Release Fertilizers for Use on Turf \* = data point with significant differences in fertilizers (GD5%)



# Tests with Bentgrass (*Agrostis* sp.):

Fertilizer

Fertilizer + ComCat O





# Autumn Fertilization

Fertilizer with High-K on 19.10.2006 with 5 g N/m<sup>2</sup>



Starter fertilizer

Starter fertilizer + ComCat O



Date: 18.01.2007



# Autumn Fertilization

Fertilizer with High-K on 19.10.2006 with 5 g N/m<sup>2</sup>

High-K

High-K + ComCat O



Date: 18.01.2007



# ComCat® used on the championship course of St Augustin, Bonn

Treatment of Green 1 on 23.06; 07.07 and 28.07 with ComCat®

Green 1: Treated with  
ComCat O no damage



Green 18: untreated  
Dollar Spot attack



Date: 25.09.2006



# Root growth after two fertilizations at Golf Club Kronach

Normal fertilizer (left) vs. Fertilizer + ComCat (right)





# Further Field Trials

- Field trials would confirm in practice the promised results
- The advantages of SG products for greens would be shown
- At the end of July, 650 golf courses received green fertilizer with ComCat O for two treatments
- For Autumn fertilization, High K with ComCat O are provided if asked.
- Many Greenskeeper took part in the trial.

**650++**

Golf courses treated

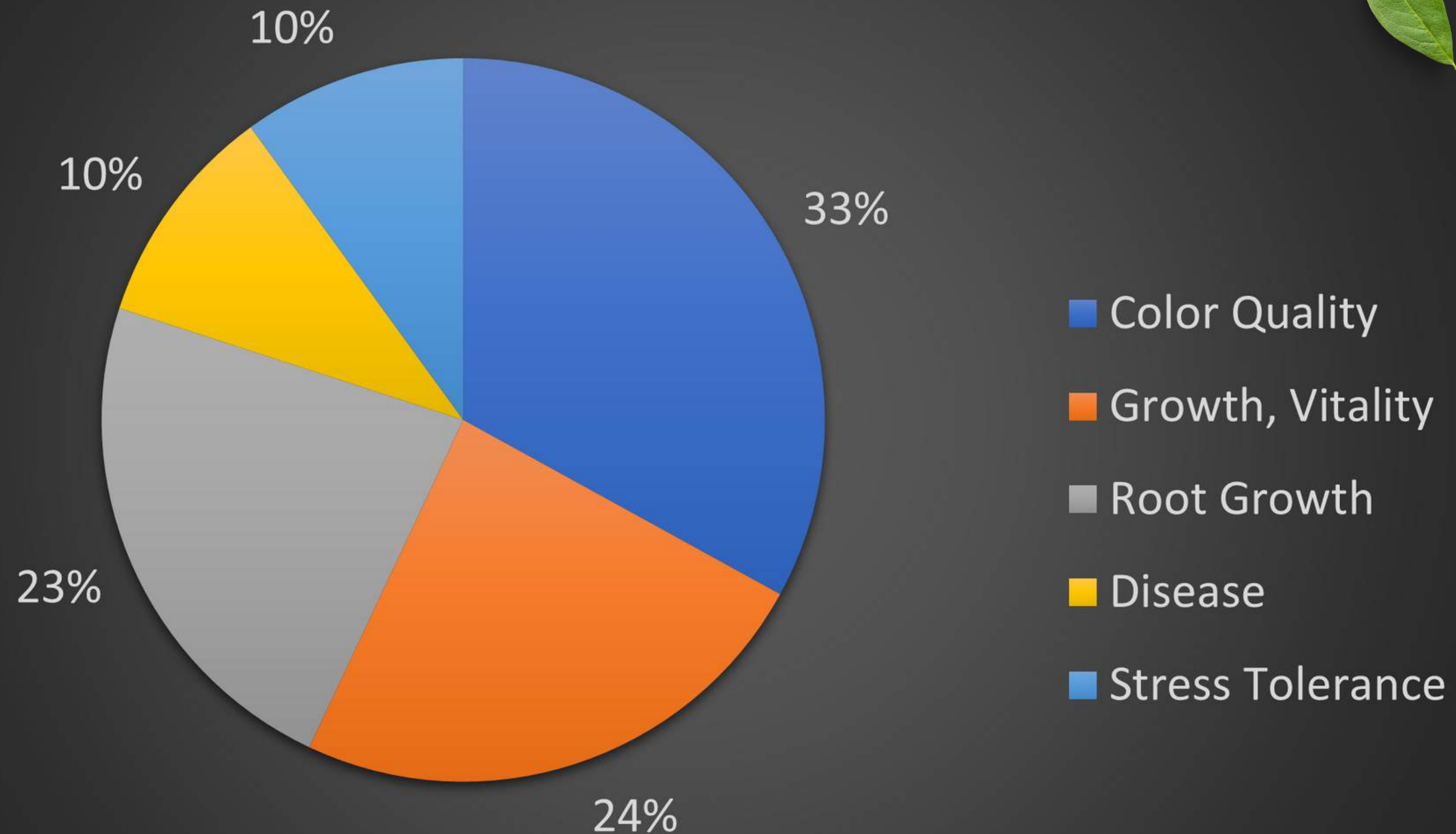
**78%**

Positive Replies





# Positive Effects Reported





# Sorghum: Growth under drought conditions, Wilbur Ellis, USA

ComCat O vs. Control





# Sorghum ComCat 0 seed treatment for drought tolerance

Wilbur Ellis, USA



ComCat 0 vs. Control



# Soccer stadiums in the Bundesliga (Germany's highest league) treated with the product range of SG



Werder Bremen



Hamburg Sport-Verein





**The Next Essential  
Element for Plants,  
That Isn't ComCat!**



# Scientifically and Publicly Proven

Horticulture  
Research

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## Functions of silicon in plant drought stress responses



> [ScientificWorldJournal](#). 2014;2014:368694. doi: 10.1155/2014/368694. Epub 2014 Jun 29.

**Silicon application increases drought tolerance of kentucky bluegrass by improving plant water relations and morphophysiological functions**



# Beneficial Effects of Silicon

- Reduce uptake of Heavy Metals (Lindsay, 1979)
- $H_4SiO_4$  diminishing Al in soil solution (Baylis et al., 1994).
- Improve mechanical strength of plant structural components (Hayasaka et al., 2008).
- Prevent Na-accumulation & salt-stress (Yeo et al., 1999).
- Reduce the effect of Abiotic stress such as Drought (Hattori et al. 2005)
- Enhancing water uptake and transport, regulating stomatal behavior and transpirational water loss, accumulating solutes and osmoregulatory substances, and inducing plant defense- associated with signaling events, consequently maintaining whole-plant water balance. (Wang et al., 2021)







SG Crop Solutions

# CibuSil S

Mono-silicic Acid

## NONPLANT FOOD INGREDIENT

### Composition:

40% (w/v) Mono-silicic acid

60% water (inert ingredient)

### Purpose:

CibuSil S is a beneficial nutrient supplement for plants/crops.

### Directions For Application:

CibuSil S can be applied to foliar directly or to soil through the irrigation systems. Dilute with water prior to

Row Crops: Apply at 100-400ml/acre for foliar spray or 200-800ml/acre for irrigation systems. Apply at 3-8 leaf stage and again before flowering if required. Use a 1:400 dilution rate or lower concentration for foliar application.

Vegetables: Apply at 100-400ml/acre for foliar spray or 200-800ml/acre for irrigation systems. Apply at 3-8 leaf stage thereafter once monthly as required. Use a 1:500 dilution rate or lower concentration for foliar application.

Fruit/Nut Tree Crops: Apply at 400-1,200ml/acre for foliar spray or 800-1,600ml for irrigation systems. Apply monthly during season as required. Use a 1:1,000 dilution rate or lower concentration for foliar application.

### Storage:

Avoid leaving open container as exposure to air crystallizes silicates.

Guaranteed by SG Crop Solutions  
P.O. Box 3721 Clovis, CA 93613 | Tel: 559-696-3350 | [www.sgcropsolutions.com](http://www.sgcropsolutions.com)

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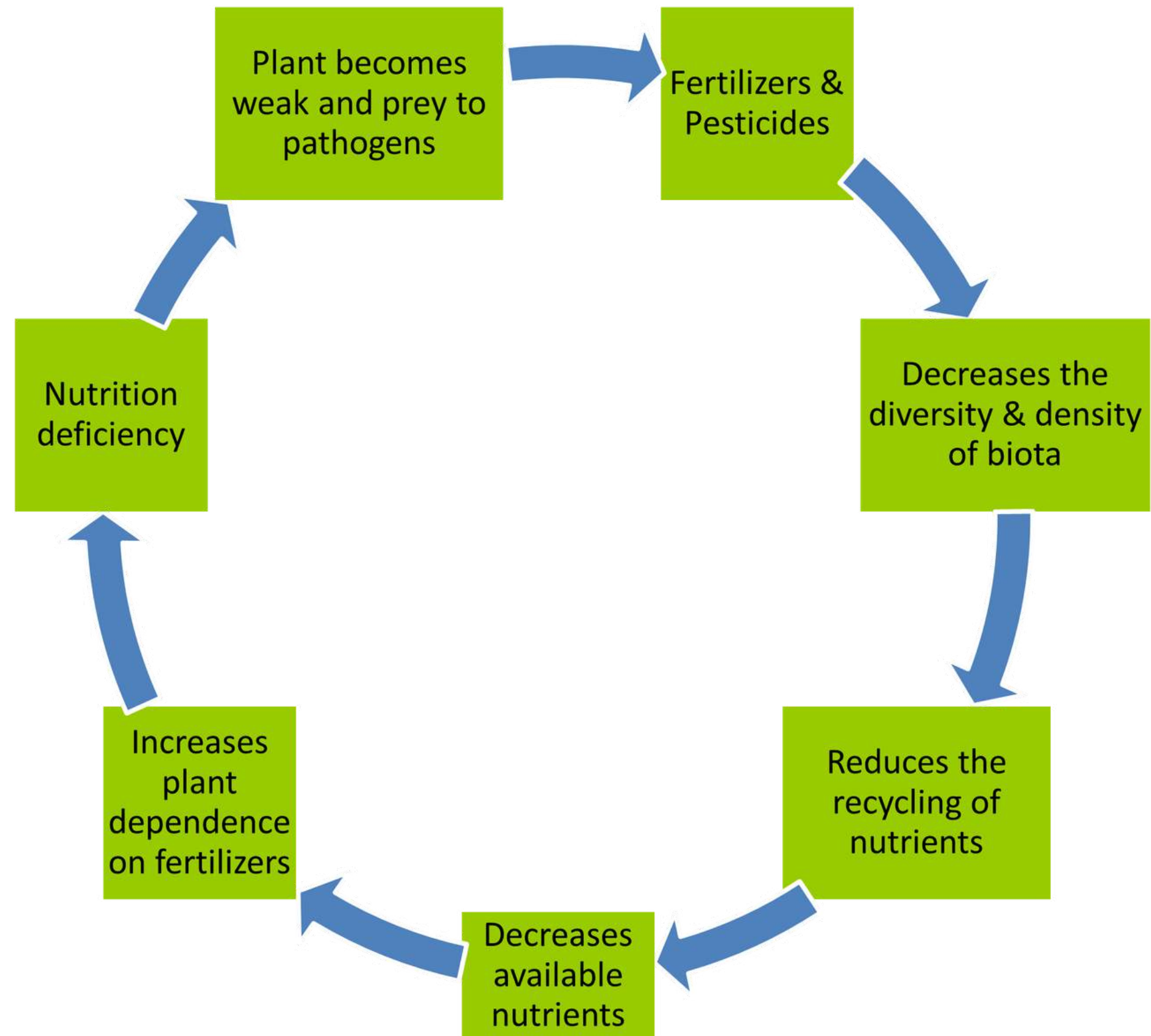


# Soil Regeneration





# Soil Degradation Cycle







**We appreciate your  
time and attention!**

