



Introduction

A proprietary liquid formulation featuring isofetamid, **Kabuto® Fungicide SC** is proven to control Spring dead spot* and dollar spot in turfgrass, including carboxamide-resistant dollar spot. Kabuto inhibits all stages of development in the lifecycle, and can be applied up to eight times per year as part of a resistance management program.

General Information

FORMULATION

Flowable suspension concentrate (SC) with 3.33 lb./gal. or 36.0% wt./wt. of the active ingredient isofetamid.

MODE OF ACTION

Isofetamid, the active ingredient in Kabuto, is a Group 7 fungicide (Carboxamide), that inhibits succinate-dehydrogenase (SDH) in complex II of fungal respiration.

USE SITES

- Kabuto is labeled for use on:
- Golf courses (greens, tees and fairways)
- Sod farms
- Seed farms
- College and professional sports fields
- Residential and commercial lawns

USE RATES

Dilution Table for Applications			
Use Rate (fl.oz. per 1000 sq. ft.)	Spray Volume 2 gallons per 1000 sq. ft.	Spray Volume 3 gallons per 1000 sq. ft.	Spray Volume 4 gallons per 1000 sq. ft.
0.4	20 fl.oz./100 gal.	13.3 fl.oz./100 gal.	10 fl.oz./100 gal.
0.5	25 fl.oz./100 gal.	16.7 fl.oz./100 gal.	12.5 fl.oz./100 gal.

LABELED DISEASES

Kabuto provides control of Spring dead spot, and provides preventative and curative control of dollar spot.

RESISTANCE MANAGEMENT

A disease management program that includes alternation or tank mixes between Kabuto and other labeled fungicides that have a different mode of action and/or control pathogens not controlled with Kabuto is essential to prevent disease-resistant pathogen populations from developing.

REI

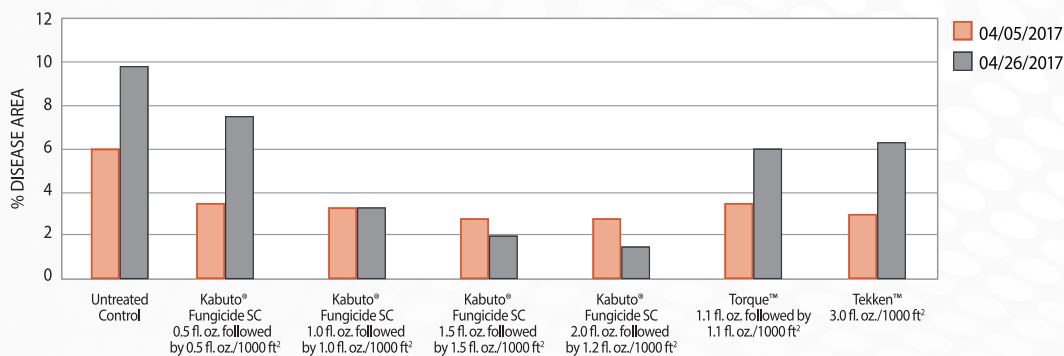
Kabuto has a restricted entry interval of 12 hours.

*Pending state registrations.

Performance Data

Spring Dead Spot Control Common Bermuda

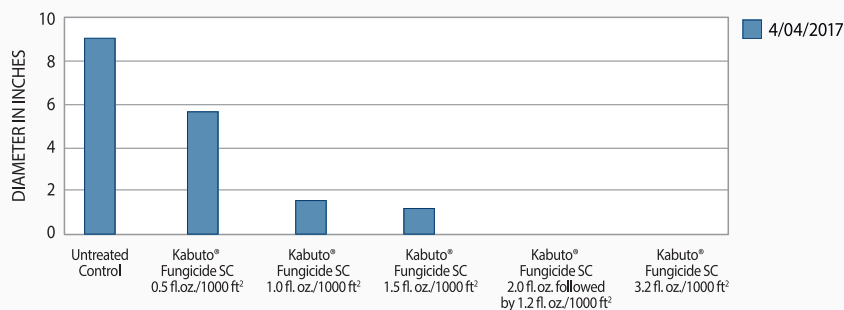
North Carolina State University, 2017



Applied October 5, 2016; Second applications applied October 25, 2016

Spring Dead Spot Control Champion Bermudagrass Putting Green

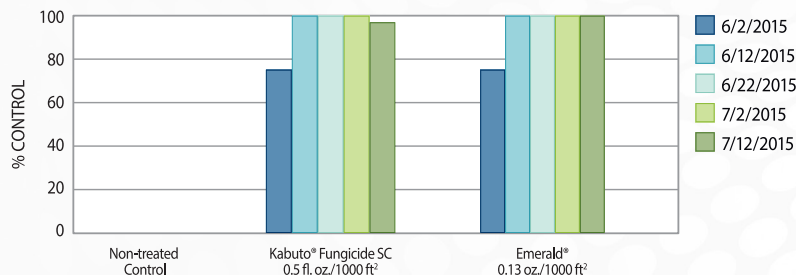
North Carolina State University, 2017



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Dollar Spot Control

Rutgers University



Initial Application Date: May 22, 2015
Applications made every two weeks through August 21, 2015



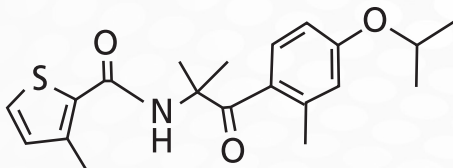
Isofetamid

PHYSICAL AND CHEMICAL PROPERTIES

Common name: Isofetamid

Chemical name: N-[1,1-dimethyl-2-(4-isopropoxy-
-o-tolyl)-2-oxoethyl]-3-
-methylthiophene-2-carboxamide

Chemical formula:



CAS number: 875915-78-9

Molecular weight: 359.48

Melting point/range: 152.7°C

pH: 7.3

Density: 1.12 g/mL

Water solubility (20°C): 5.33mg/L

pK_a at 20°C: Does not dissociate between
pH 4-10

Vapor pressure (25°C): 4.2×10^{-7} Pa

Half-lives: Aerobic soil 27-55 days
Anaerobic soil 572 days

**KOC – organic-carbon
sorption constant (ml g⁻¹):** 489

MAMMALIAN TOXICITY

Hazard Indicator	Technical
Acute oral LD ₅₀	>2,000 mg/kg (rat)
Acute dermal LD ₅₀	>2,000 mg/kg (rabbit)
Acute inhalation LC ₃₀	>5.13 mg/L
Eye irritation	Non-irritating
Skin irritation	Non-irritating
Skin sensitization	Not a contact sensitizer

ENVIRONMENTAL SAFETY

Hazard Indicator	Acute Toxicity Values
Freshwater fish (carp)	96-hour LC ₅₀ = 100mg/L (35 mg a.i./L)
Freshwater invertebrate (Daphnia magna)	48-hour EC ₅₀ = 25 mg/L (8.5 mg a.i./L)
Algae (Pseudokirchneriella subcapitata)	96-hour E _r C ₅₀ = 940 mg/L
Bobwhite quail acute	LD50> 2,000 mg a.i./kg body weight (practically non-toxic)
Sub-acute dietary bird	LD50> 5,000 ppm a.i. in diet for both quail and mallard

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