



From Fertilizers to  
Pesticides - What  
inputs are allowed  
in Organics?

**OATS**  
Organic Agronomy  
Training Service

Fiscal Sponsor: Organic Trade Association



This material is based upon work that is supported by the National Institute of Food and Agriculture, U.S. Department of Agriculture, under agreement number 2022-38640-37486 through the North Central Region SARE program under project number ENC22-215. USDA is an equal opportunity employer and service provider. Any opinions, findings, conclusions, or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the view of the U.S. Department of Agriculture.

A person wearing blue jeans and a dark shirt is kneeling in a field of green crops. Their hands are near the plants, possibly inspecting them. The background is a dense field of similar crops under a bright sky.

Organic agriculture is:

- (1) a set of production practices and principles rooted in natural systems,
- (2) defined, regulated, and protected by the USDA.

Organic provides a verification method for US consumers and a market premium for farmers.

# Requirements for Organic Certification

7 CFR Part 205 - National Organic Program



## § 205.202 Land requirements

Any field or farm parcel from which harvested crops are intended to be sold, labeled, or represented as “organic,” must:

(a) Have been managed in accordance with the provisions of the following standards:

- 205.203 - Soil fertility and crop nutrient management
- 205.204 - Seeds and planting stock
- 205.205 - Crop rotation
- 205.206 - Crop pest, weed, and disease management

(b) Have had no prohibited substances applied to it for a period of 3 years [36 months] immediately preceding harvest of the crop; and

(c) Have distinct, defined boundaries and buffer zones such as runoff diversions to prevent the unintended application of a prohibited substance to the crop or contact with a prohibited substance applied to adjoining land that is not under organic management.

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## “Transition” - § 205.202(b)

- No prohibited substances applied for a period 36 months immediately preceding harvest of the crop
- Organic transition starts on the day of the last prohibited input application
- Producer must document this date in their farm records
- The first organic harvest happens after the third anniversary
- Example:
  - LPI = synthetic on October 27, 2020
  - Corn planted April 23, 2023
  - Corn harvested AFTER October 27, 2023 is certified organic



## §§ 205.601 - 205.605 The National List of Allowed and Prohibited Substances

Generally:

- Non-synthetic (natural) substances are ALLOWED
- Synthetic substances are PROHIBITED

The “National List” outlines the exceptions.

- 205.601 - Synthetic substances that are ALLOWED
  - E.g. micronutrients
- 205.602 - Non-synthetic substances that are PROHIBITED
  - E.g. arsenic

205.603-205.605 cover livestock and handling





## OMRI Search

Marrone Bio Innovations PACESETTER



EXACT MATCH

Filters

### Within Your Current Search Results

Click on a type below to view only that type within your results

Manufacturer (284)

Category (64)

Glossary (13)

Materials Article (8)

Press Release (5)

Site Content (3)

Livestock Vitamins Minerals (2)

OMRI Listed Product (1997)

2376 Total Results for "marrone bio innovations pacesetter"

1 2 3 4 5 6 7 8 9 next > last >>

### ✓ Marrone Bio Innovations PACESETTER



[certificate](#)

**RULING BODY:** NOP

**STATUS:** Allowed with Restrictions

**PRODUCT CODE:** moi-13975

**USE CLASS:** Crop Pest, Weed, and Disease Control

**CATEGORIES:** Botanical Pesticides

**RESTRICTIONS:** May only be used if the requirements of 205.206(e) are met, which require the use of preventive, mechanical, physical, and other pest, weed, and disease management practices.

**COMPANY:** [Marrone Bio Innovations](#)

**DATE LISTED:** 14-May-2020

**EXPIRATION:** 1-Sep-2024

## ALLOWED

- Means allowed under all conditions
- Examples:
  - Wood chip mulch
  - Biological inoculants
  - Molasses

## ALLOWED WITH RESTRICTIONS

- Allowed for use in organic, but have certain restrictions or parameters that must be followed for use
- Examples:
  - Manure
  - Synthetic micronutrients

## PROHIBITED

- NEVER allowed
- Examples:
  - Arsenic
  - Glyphosate

## ALLOWED

### § 205.105 Allowed & Prohibited Substances

Anything non-synthetic (“natural”) that is NOT on the National List

Examples:

- Wood chips
- Straw
- Molasses



## ALLOWED WITH RESTRICTIONS

### § 205.203(c)(1) Raw animal manure

Must be composted unless:

- (i) Applied to land used for a crop not intended for human consumption;
- (ii) Incorporated into the soil not less than 120 days prior to the harvest of a product whose edible portion has direct contact with the soil surface or soil particles; or
- (iii) Incorporated into the soil not less than 90 days prior to the harvest of a product whose edible portion does not have direct contact with the soil surface or soil particles;



## ALLOWED WITH RESTRICTIONS

### § 205.602(h) Sodium nitrate

(Also known as Chilean nitrate)

Prohibited unless use is restricted to no more than 20% of the crop's total nitrogen requirement.

ALWAYS prohibited in Canada and the EU.



## ALLOWED WITH RESTRICTIONS

### § 205.603 Allowed Synthetics

Copper hydroxide/oxide/oxychloride as a plant disease control - must not accumulate in the soil - (i)(2)

Micronutrients - must document a deficiency - (j)(7)

Soap-based herbicides - for use in farmstead maintenance (roadways, ditches, right of ways, building perimeters) - (b)(1)



## ALLOWED WITH RESTRICTIONS

### § 205.204 Non-organic seed

Organic farms must use organic seed when commercially available.

To use non-organic varieties:

- MUST conduct an “Organic Seed Search”
  - Call at least 3 companies that sell organic seed and ask for the required agronomic characteristics
  - See Guidance Document NOP 5029
- MUST use non-GMO varieties
- MUST NOT use prohibited substances in seed treatments/coatings



## PROHIBITED

- Any synthetic material not on the National List - 205.601 & 205.603
- Sewage sludge (biosolids) - 205.203(e)(2), 205.105(g)
- Ionizing radiation - 205.105(f)
- Treated lumber for new installations or replacements - 205.206(f)
- Ash from manure burning - 205.602(a)
- Rotenone - 205.602(f)
- Strychnine - 205.602(i)



## PROHIBITED

### § 205.2 Excluded Methods

Watch out for:

- “biotechnology enhanced”
- Microbial inoculants
- Microbes in pest control
- Microbes in livestock feed
- GMO seeds





Every ingredient counts!

## PROHIBITED

- “Natural” products can become synthetic if they are treated with a chemical process or have synthetics added with them in the product mix.
- Examples:
  - Hydrolysis
  - Pelletizers and dust suppressants in fertilizers
  - Pit stabilizers in hog manure
  - Solvent extraction



# *Activity*

## *Material Input Review*

#1



**Regalia<sup>®</sup>**  
**Biofungicide Concentrate**

A plant extract to boost the plants' natural defense mechanisms to protect against certain fungal and bacterial diseases, and to improve plant health.

Active ingredient: Extract of *Reynoutria sachalinensis* ..... 5 %  
 Other ingredients: ..... 95 %  
 Total: ..... 100 %

EPA Reg. No. 84059-3

- EPA Est. No. 085970-FL-001
- EPA Est. No. 047857-CA-001
- EPA Est. No. 61842-CA-001

KEEP OUT OF REACH OF CHILDREN

**CAUTION**

FIRST AID	
<b>IF SWALLOWED:</b>	Call poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.
<b>IF ON SKIN OR CLOTHING:</b>	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
<b>IF INHALED:</b>	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
<b>IF IN EYES:</b>	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
Have the product container or label with you when calling a poison control center or doctor, or if going for treatment.	



CAN BE USED IN ORGANIC PRODUCTION



**Marrone**  
 Bio Innovations  
 2121 Second St., Ste. B-107  
 Davis, CA 95618 USA  
 info@marronebio.com



NET CONTENTS:

- 1 gallon    2.5 gallons    \_\_\_\_\_

REG-11-02

Lot #:

#1

Nonsynthetic

AR

205.206(e)  
requires the  
use of  
preventive  
practices



A plant extract to boost the plants' natural defense mechanisms to protect against certain fungal and bacterial diseases, and to improve plant health.

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CAN BE USED IN ORGANIC PRODUCTION



NET CONTENTS:  
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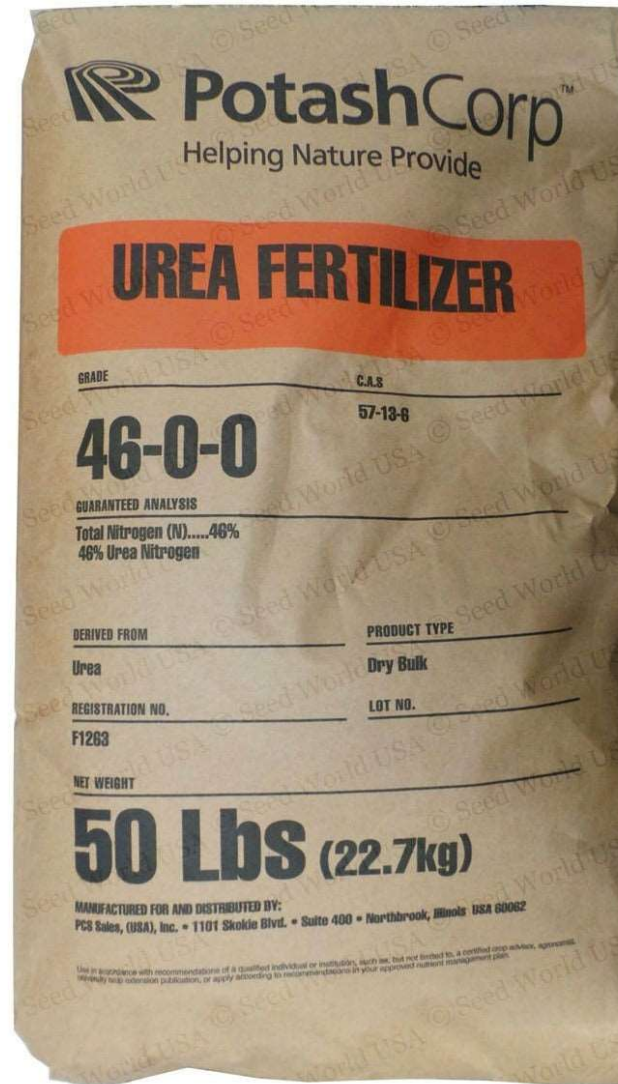
REG-11-02

Lot #:

**Marrone**  
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#2

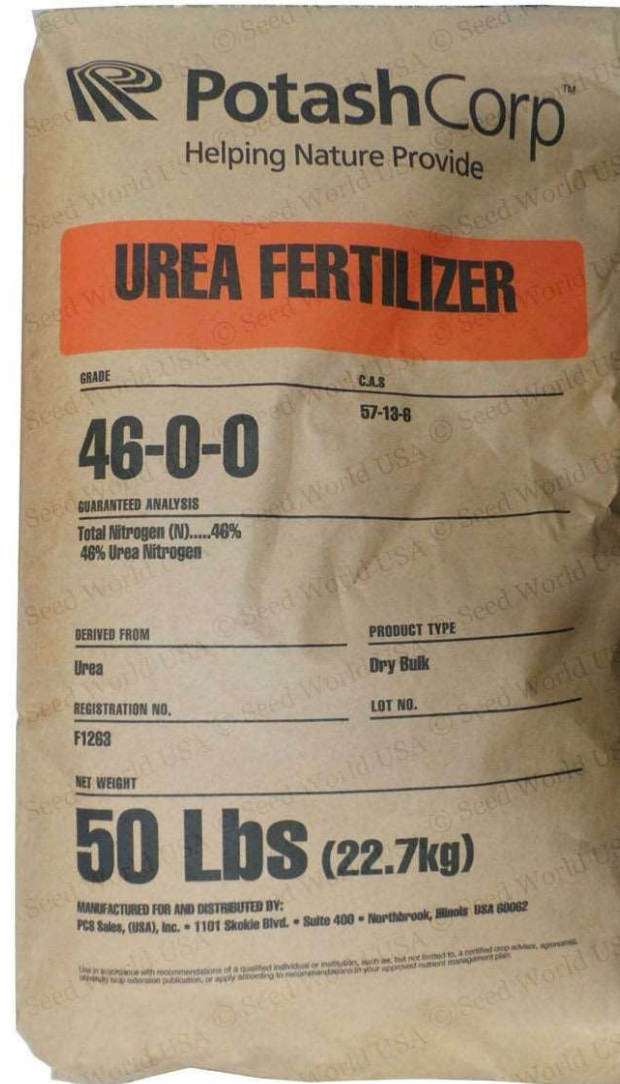


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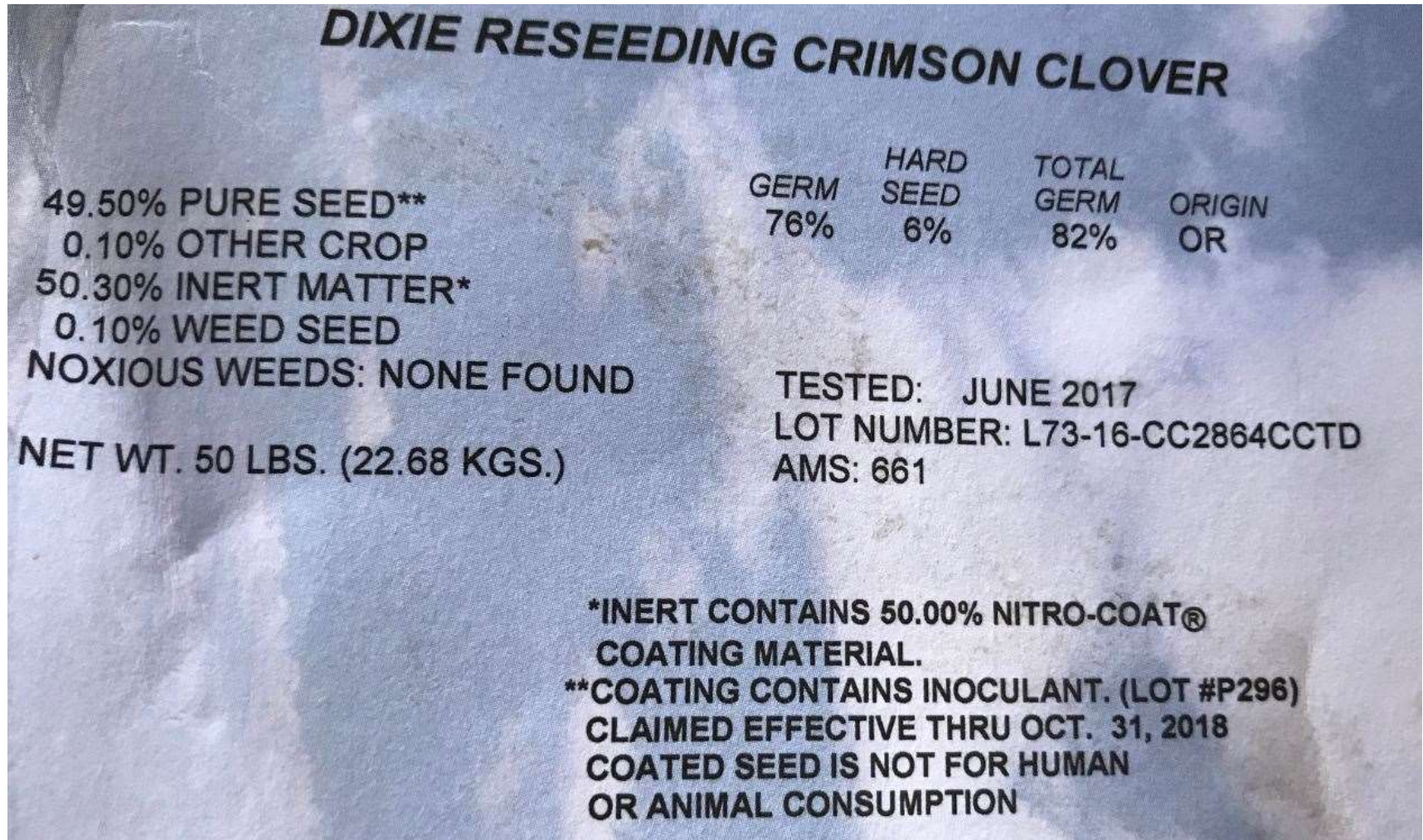
Synthetic

Prohibited

205.105(a)



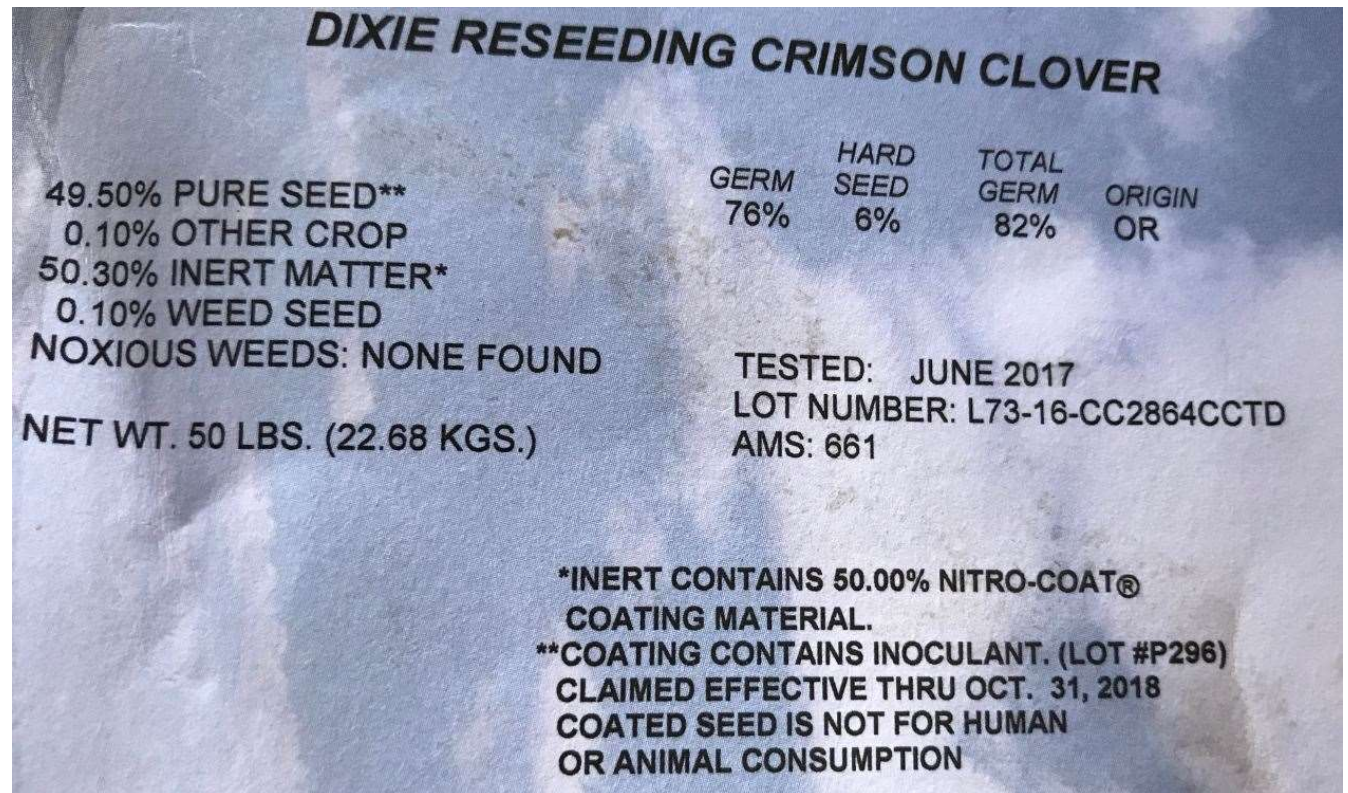
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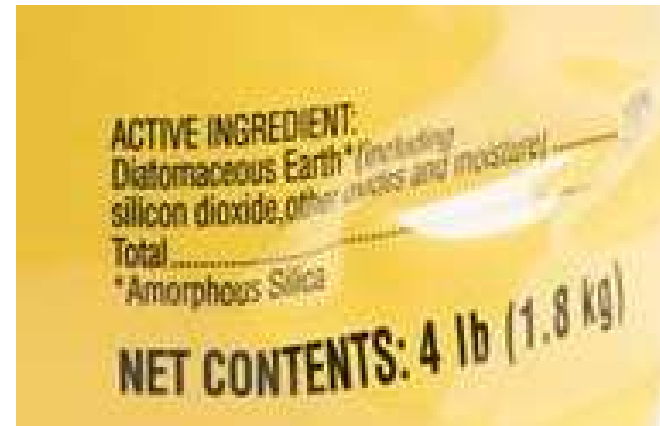
#3

Seed = 205.204

Nitro-coat =  
Nonsynthetic  
Allowed  
205.105



#4



#5



## 438RR Roundup Ready® Alfalfa

**\$9.50**

- Scientific name: *Medicago sativa*
- Roundup Ready® Alfalfa
- Unsurpassed weed control
- Great forage yield potential
- Superior forage quality
- High multifoliate leaf expression
- Germination salt tolerance
- Excellent winterhardiness and persistence
- Perfect 30 out of 30 Wisconsin Disease Rating Index
- Available only in 50 lb bags
- **NOT AVAILABLE FOR ONLINE PURCHASE**

## #4 Synthetic, Prohibited, 205.2 & 205.105(e)



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*OATS is supported with funding from the Organic Trade Association's industry-invested [GRO Organic](#) research, promotion, and education program. Top 2022 GRO Technical Assistance Donors are General Mills, Santa Cruz Organic, and Oatly.*

Thank you.

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