

Discovery of a New Plant/Pathogen Relationship in San Diego County

Opuntia littoralis / *Fusarium brachygibbosum*

SDMMP

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AECOM

Location of the Discovery (April 2021)

City of San Diego Cactus Conservation Nursery
Highland Valley Road (Big Trees Nursery)

Identification the Pathogen

UC Davis Plant Pathology Department

Molecular Sequencing (completed July 2021)

Dr. Johanna Del Castillo

Dr. Akif Eskalen

Additional taxa identified in the sampling included *Alternaria* sp.
and *Cladosporium delicatulum*

Opuntia littoralis / *Fusarium brachygibbosum*

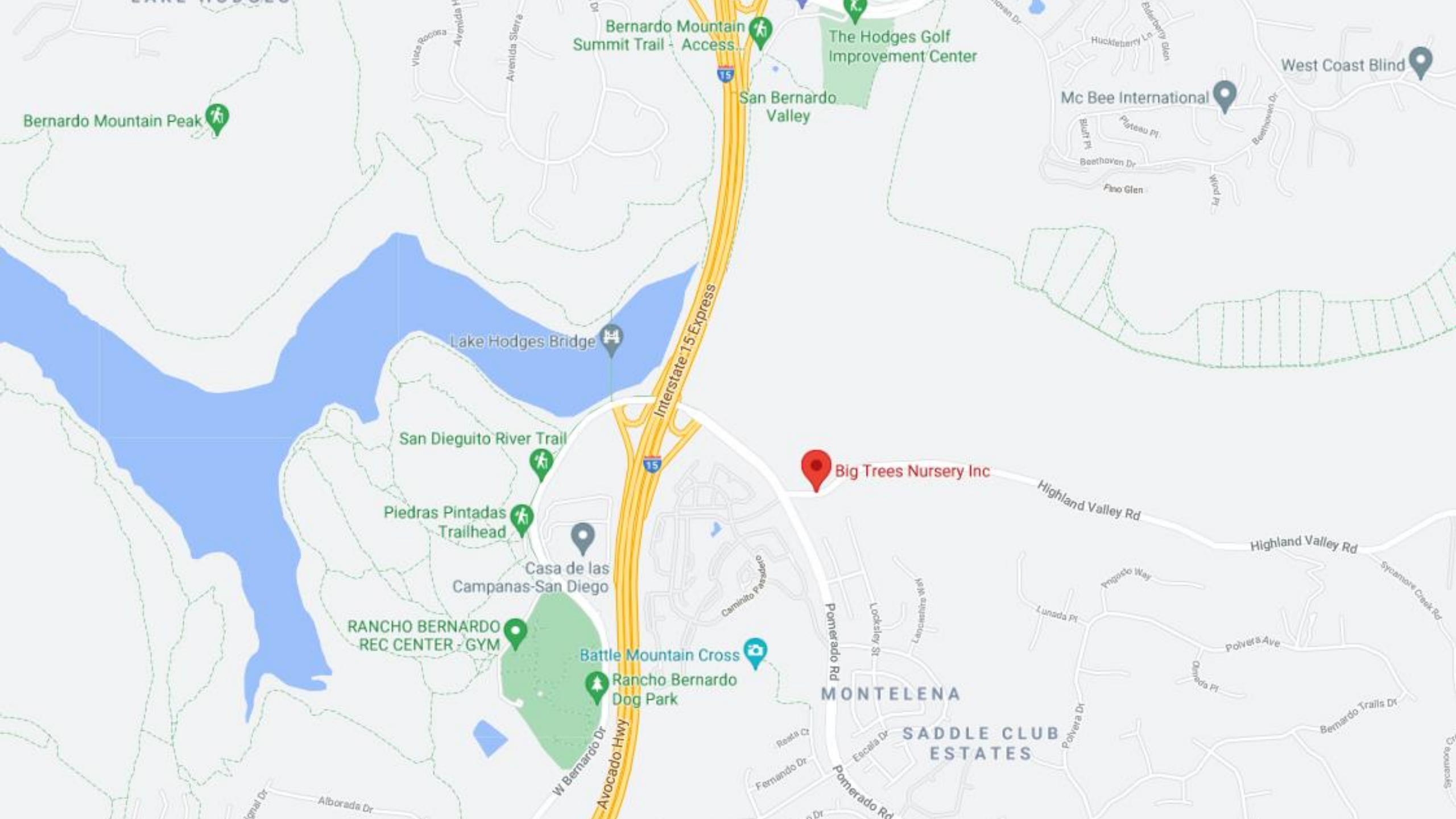


Opuntia littoralis / *Fusarium brachygibbosum*



Opuntia littoralis / *Fusarium brachygibbosum*





Bernardo Mountain Peak

Bernardo Mountain Summit Trail - Access

The Hodges Golf Improvement Center

San Bernardo Valley

Mc Bee International

West Coast Blind

Lake Hodges Bridge

Interstate 15 Express

San Dieguito River Trail

Big Trees Nursery Inc

Highland Valley Rd

Highland Valley Rd

Piedras Pintadas Trailhead

Casa de las Campanas-San Diego

RANCHO BERNARDO REC CENTER - GYM

Battle Mountain Cross

Rancho Bernardo Dog Park

MONTELENA

SADDLE CLUB ESTATES

Alborada Dr

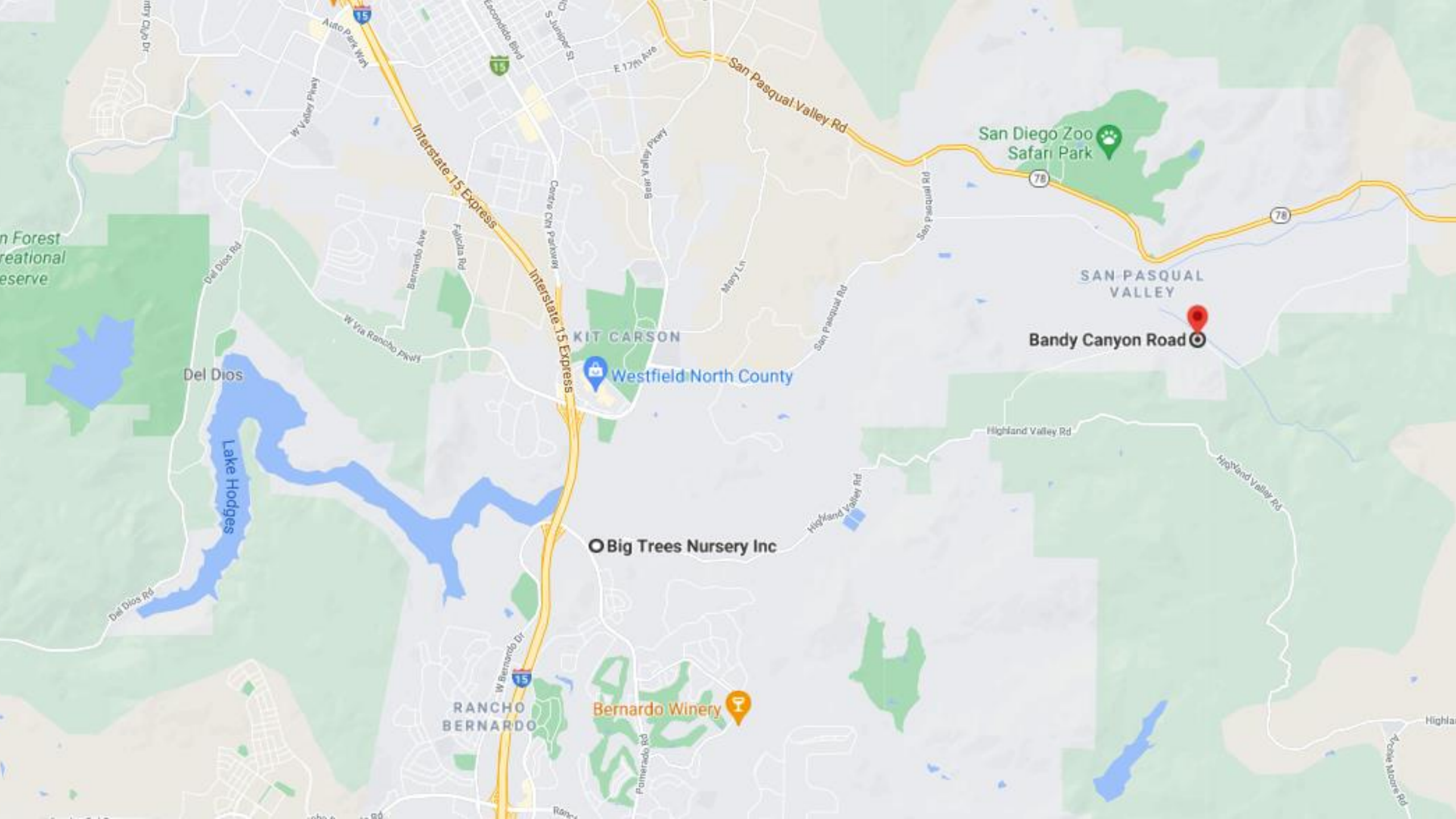
Avocado Hwy

Pomerado Rd

Pomerado Rd

Plover Ave

Bernardo Trails Dr



Bandy Canyon Road

San Diego Zoo
Safari Park

KIT CARSON

Westfield North County

Big Trees Nursery Inc

RANCHO
BERNARDO

Bernardo Winery

Interstate 15 Express

San Pasqual Valley Rd

Del Dios

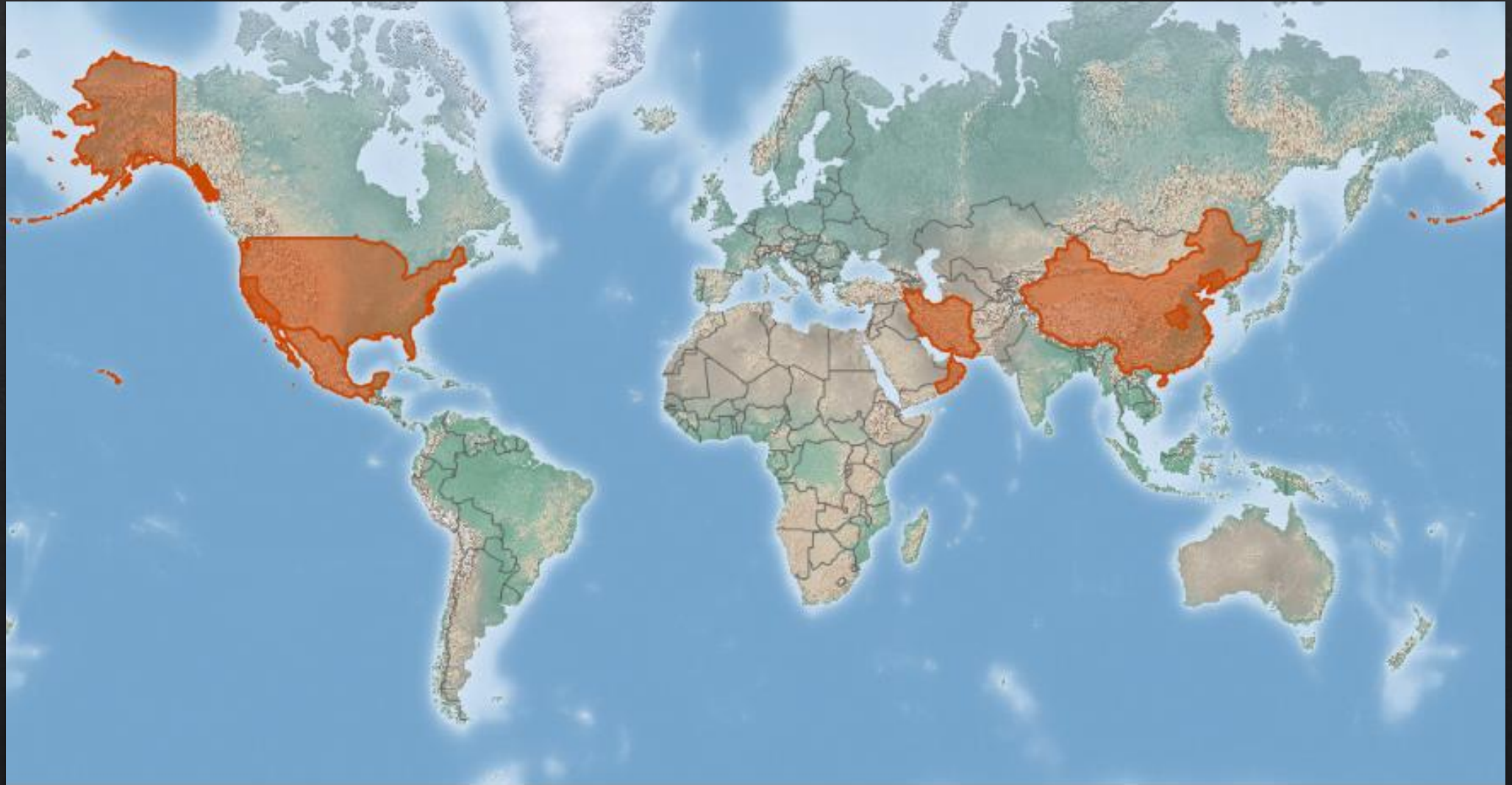
Lake Hodges

SAN PASQUAL
VALLEY

Fusarium brachygibbosum

First detection in California was in 2016 from samples (bare root almond trees) that had been collected in fall 2013, from a nursery in Sutter County

Fusarium brachygibbosum



Fusarium Wilt



Fusarium brachygibbosum

Known Plant/Pathogen Relationships

Alliaceae	<i>Allium cepa</i>	(onion)
Apocynaceae	<i>Nerium oleander</i>	(oleander)
Cucurbitaceae	<i>Citrullus lanatus</i>	(watermelon)
Euphorbiaceae	<i>Euphorbia larica</i>	(isbaq)
Fabaceae	<i>Glycine max</i>	(soybean)
Poaceae	<i>Sorghum vulgare</i>	(sorghum), <i>Triticum</i> spp. (wheat)
Solanaceae	<i>Nicotiana tabacum</i>	(tobacco)
Rosaceae	<i>Prunus dulcis</i>	(almond)

And now

<i>Cactaceae</i>	<i>Opuntia littoralis</i>	(prickly pear)
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Fusarium brachygibbosum

Reproduction

Sexual and Asexual Reproduction

Dispersal

Airborne and Soilborne

Fusarium brachygibbosum

Notification of Presence in San Diego County

County of San Diego

Department of Agriculture, Weights and Measures

University of California Cooperative Extension

Fusarium brachygibbosum

Treatment options are currently being considered in cooperation with University of California Cooperative Extension

Additional testing to be conducted by UCD

Additional information will be provided as more is known about treatment and prognosis

Fusarium brachygibbosum

Wildland Implications



Fusarium brachygibbosum

Questions?

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