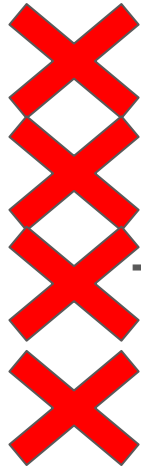


Cactus & Succulents

The Myths & The Truths



CACTUS AND SUCCULENTS THRIVE ON NEGLECT

YOU NEVER HAVE TO WATER THEM

THEY GROW IN SAND IN THE DESERT

THEY ALL WANT FULL SUN ALL DAY LONG

Cactus & Succulent Neglect

THIRST

They're succulents....They should be...succulent!



Cactus will drop roots,
consume what's in the body,
and eventually collapse.





Sad Wrinkly Raisins On The Left

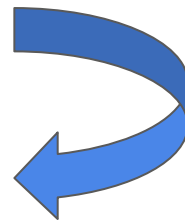
Plump Happy Guys on the Right



SAD :(



HAPPY! :)



Bad, bad soil...

Myakka - our State Soil. It's pretty awful.



Sand holds zero nutrients.
Most neighborhoods were built
on fill sand which is even worse
and takes years to repair.
Soil is the least renewable
component of an ecosystem!

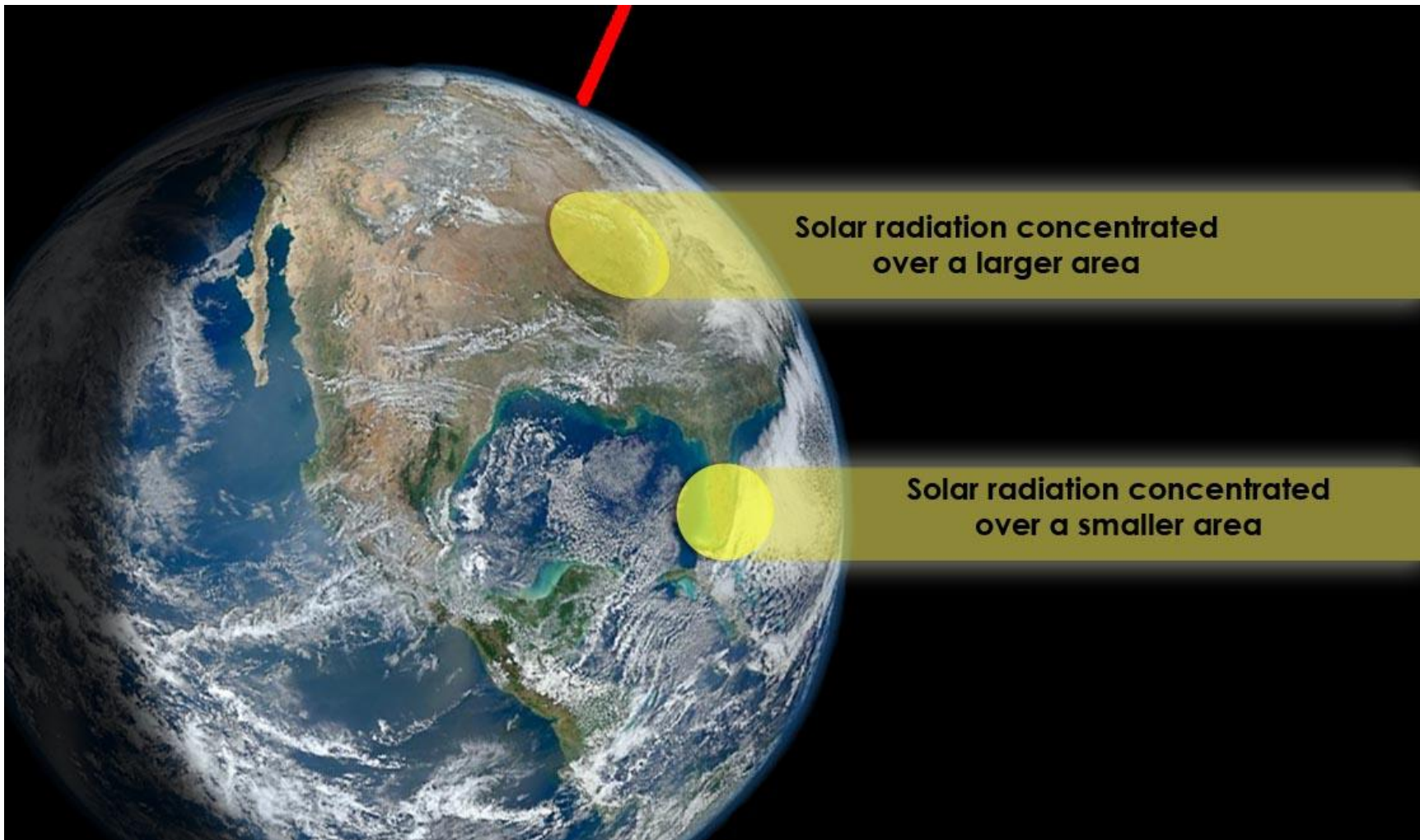
Root Knot Nematodes

Sand has very few organisms except the dreaded Root Knot Nematode.
Give 'em a little competition! COMPOST !



No need for pesticide control, the compost kills the nematodes.
Compost is like a healthy diet versus eating empty calories and taking vitamins to compensate.
No need for chemical fertilizers.
LAY IT ON THICK!
Atlas Organics



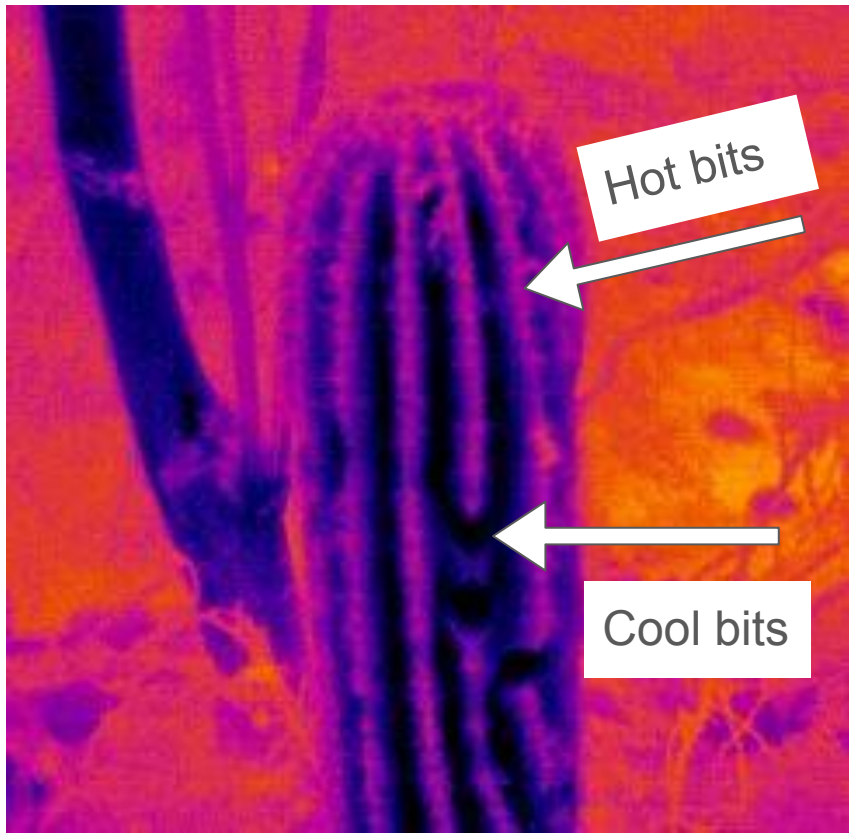


**Solar radiation concentrated
over a larger area**

**Solar radiation concentrated
over a smaller area**

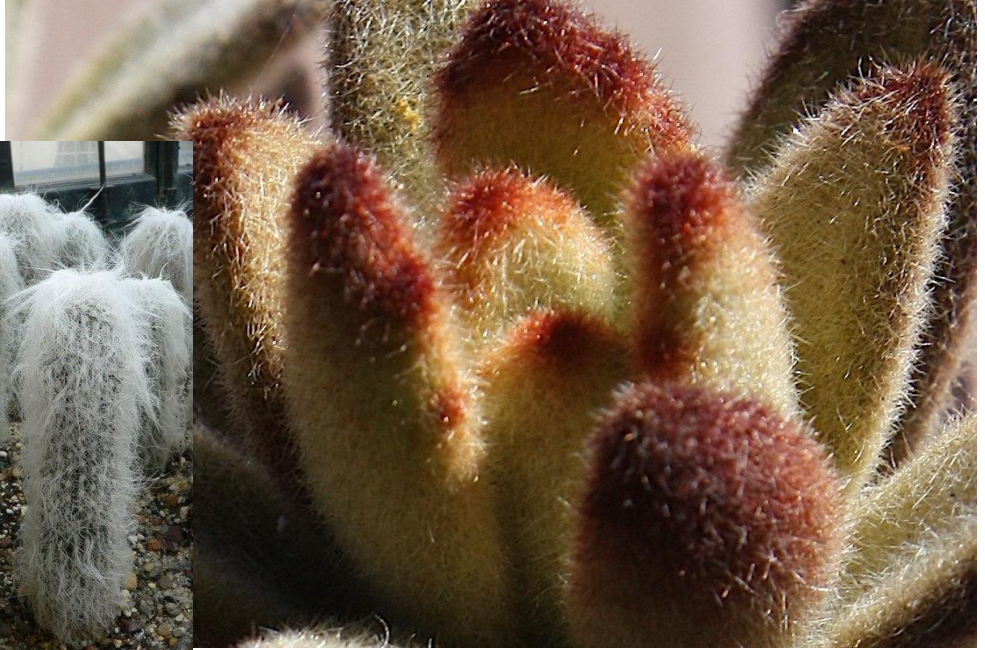




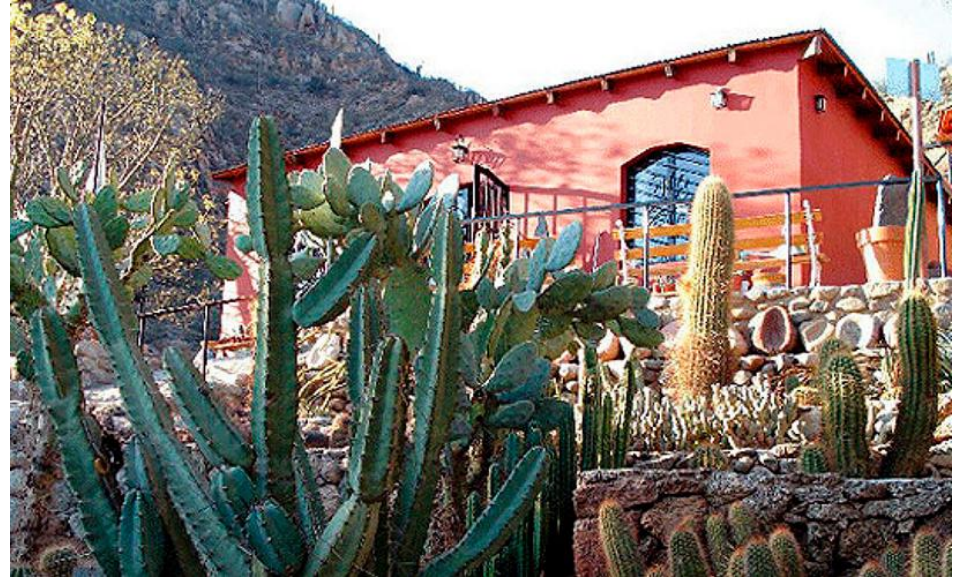


Some Clues Your Succulent or Cactus Can Take More Sun

Fur!



Learn a bit about its origin



Succulents and Cacti
native to Cuba.

Succulents from Kenya

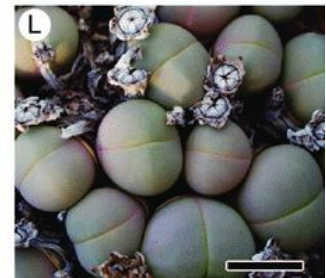
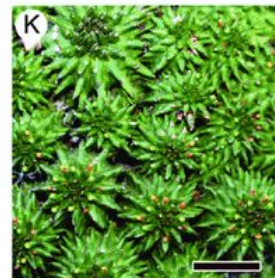
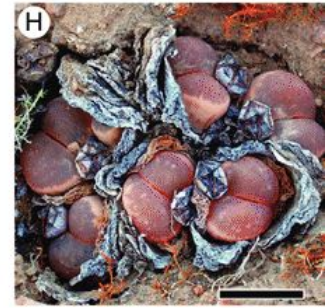
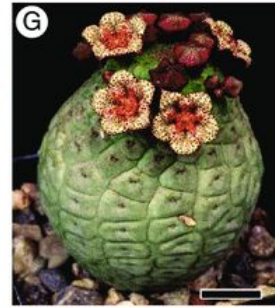
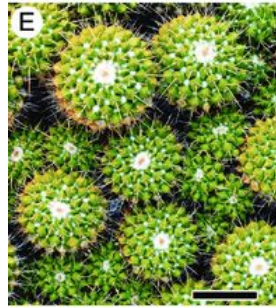
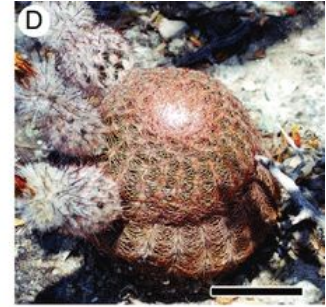
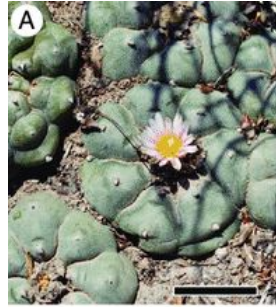
Similar climate in most parts, compatible!



South Africa

VERY difficult to establish here!

Hate our sun and lack of cold nights!



A close-up photograph of a butterfly with black, yellow, and blue wings perched on a vibrant red flower. The background is a soft-focus green, suggesting foliage. The text is overlaid on the image.

Succulents and Native Pollinators

A Match Made In Heaven

MYTHS

Natives are pretty much just palm trees, and scrubby looking things.

WRONG!

Florida has native cacti, succulents, fruit trees, herbs, berries, flowering vines, flowering perennials - with a climate like this, we have EVERYTHING!



MYTH: We have to save the honeybees!



1. Honeybees are not native. They were imported from clear across the globe.
2. Honeybees can have too dense of a population and crowd out the natives.
3. Honeybees aren't even great pollinators - they make a cake out of the pollen and don't even spread it well. They also can be nectar robbers, poking a hole in the flower and sucking the nectar out without a speck of pollen being picked up.

1. Native plants need native pollinators. Some native bees have evolved to shake pollen loose with their big bodies. Some have special hairs that carry and drop pollen at the exact right time during flower visits. The hibiscus bee pollinating the native Florida hibiscus - this bee is also quite fond of my cactus flowers!



Blueberry Bee - A Native Specialist

This bee is perfectly adapted to pollinate the tubular flowers of blueberries, burrowing in with their hairy bodies and collecting all the sticky pollen. They also pollinate many of my rare succulents with similar flowers.



American Hoverfly

Looks like a bee, but is an omnivore that will visit your native asters and other flowers and dine on your aphids and scale pests too!



MYTH: You have to have either a stark cactus garden or a flowery type perennial garden.

Natives And Relationships With Cacti & Succulents

Slow growing cacti and succulents in the landscape can sometimes be overrun with native pests. How could a plant actually serve as a guardian for another completely unrelated plant?



Many Florida native flowers are adapted to attract beneficials for their own protection.



Which in turn, protects your cacti and succulents!! Most pollinators start their lives as carnivores, preying on energy rich foods like aphids and scale. Naturally, you want to attract the adults to get those little baby hunters!

Coreopsis, beach sunflower, gaillardia, and coneflower all provide large, flat landing pads for pollinators. Dotted horsemint, our native beebalm, is a bee favorite. And some great native landscape shrubs such as Walter's viburnum, yaupon holly, saw palmetto, and gallberry, provide loads of pollen.

Sphecid Wasps - A Brutal Little Bug

The Florida hunting wasp feeds on nectar, but is a dangerous assassin when it comes to feeding their young. They will catch caterpillars or grasshoppers feeding on your plants, paralyze them, and seal them inside their nest for their young to devour. They did a great job of clearing the oleander moth caterpillars off of my desert roses! Attract this wasp with plenty of flowering pollinator plants!



Agaves, Mealies and Trash Bugs



Trash Bugs are lacewing juveniles who disguise themselves with a few body parts from their previous meals of the dreaded mealy bug. It protects them from the ever watchful ants that “farm” and care for mealy bugs - they can sneak right in the flock under the radar and eat half the herd.



Stink Bugs Really Like Madagascar's Ocotillo

Alluaudia procera is a spiny shrub from Madagascar, and seems to be the favorite place for predatory stink bugs to lay their eggs, now that the native insectary plants have provided hunting grounds and food sources. These are amazing hunters that can eat toxic caterpillars that everyone else avoids!



Support Local Nurseries!

You can't go to Home Depot and expect any knowledge.

Big Box Stores:

- Do not sell ANY natives.
- Sell the invasive milkweed shamelessly, especially this time of year.
- Sell plants treated with neonicotinoids, which are toxic to you and to good bugs.
- Will sell you plants that cannot tolerate certain seasons here, aka lithops, bat flower plants, aeonium, etc.
- Have zero knowledge of natives, soil health, gardening, fertilizing, beneficial insects, and appropriate plant suggestions.

Dust

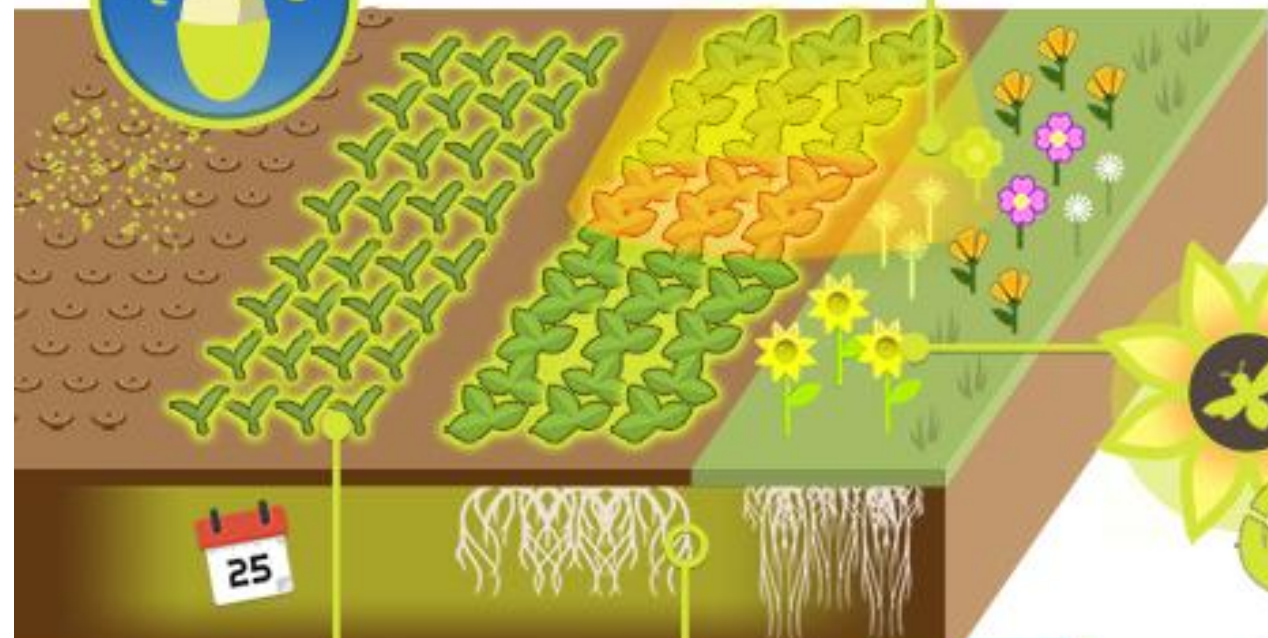
Neonicotinoids can be released as dust from coated seeds during mechanized planting. This dust can move off-site exposing bees or contaminating non-target sites.

Spray Drift

When applied as a spray, neonicotinoids can drift off-site directly exposing bees or contaminating non-target sites.

Uptake

Plants take up neonicotinoids, allowing the chemical to spread through the plant's tissues potentially exposing insects that eat pollen, nectar, or other plant tissue.



Persistence

Most neonicotinoids are long-lived. As such they can persist in the environment for months to years after application.

Leaching

Neonicotinoids can leach into subsurface water where they can contaminate ground water or be taken up by neighboring plants.

Watershed Contamination

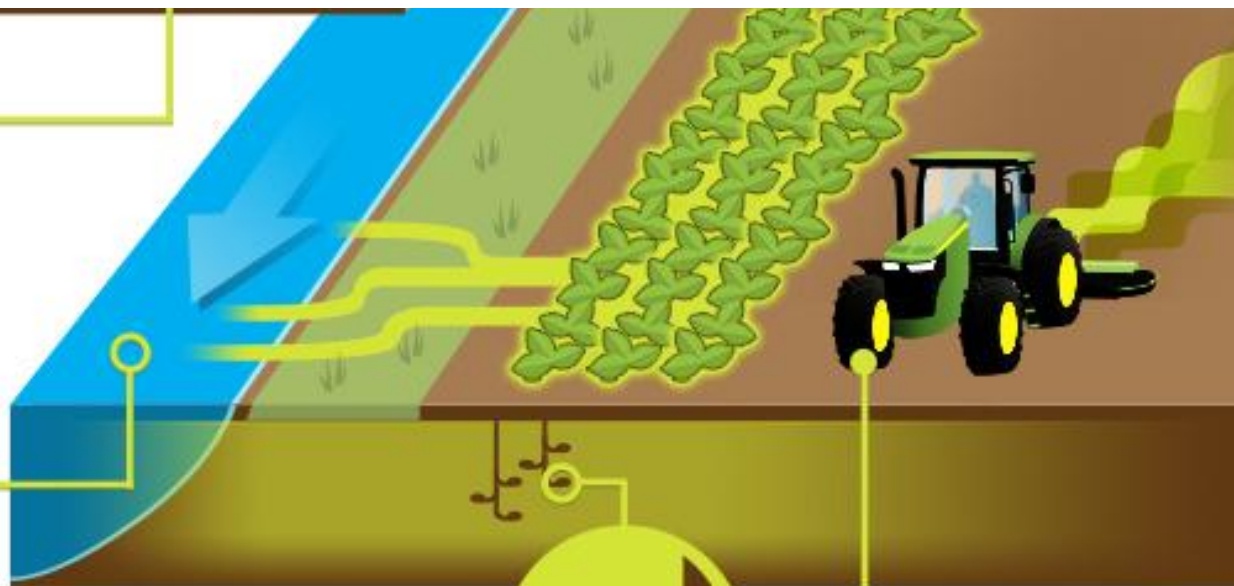
Neonicotinoids are water-soluble by design. This means they can move with shallow subsurface flow or with surface runoff into local waterbodies.

Movement Into Habitat of Ground Nesting Insects

70% of native bees are ground nesting. Ground nesting insects could become contaminated, especially when neonicotinoids are applied as a soil drench.

Wind Erosion

Neonicotinoids have been found in soil and soil dust. Contaminated soil can be dispersed by wind.



LIGHTHOUSE BEACH PARK
NOV. 28, 2022



JAN 2024

