

# Poisonous Plants Common in Arizona Gardens and Homes

12/9/2019



## Poisonous Plants Common in Arizona Gardens and Homes

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# Poisonous Plants Common in Arizona Gardens and Homes

**The following will be discussed in this presentation**

- Poisonous garden and house plants commonly grown in Arizona
- Poisonous plants affecting dogs and cats



Rain Lily



Arizona poppy



Coral bean

## Plants most commonly reported to Poison Center Hotlines

- 1. *Capsicum*
- 2. *Dieffenbachia*
- 3. *Philodendron*
- 4. *Caladium*
- 5. *Spathiphyllum*
- 6. *Datura*
- 7. *Euphorbia*
- 8. *Ficus*
- 9. *Narcissus*
- 10. *Phytolacca*
- 11. *Zantedeschia*
- 12. *Ilex*
- 13. *Epipremnum*
- 14. *Iris*
- 15. *Eucalyptus*
- 16. *Ephedra*
- 17. *Hedera*
- 18. *Arisaema*
- 19. *Piper nigrum*
- 20. *Begonia*

<http://www.petpoisonhelpline.com/poisons/>



# Poisonous Plants Common in Arizona Gardens and Homes

## Toxic House & Garden Plants

- Arrowhead plant (*Syngonium podophyllum*)
- Asparagus fern (*Asparagus densiflorus*)
- *Begonia* species
- Caladium (*Caladium bicolor*)
- Cardboard palm (*Zamia furfuracea*)
- Chinese evergreen (*Aglaonema modestum*)
- Coontie (*Zamia pumila*)
- Corn plant (*Dracaena fragrans*)
- Cuban oregano (*Plectranthus amboinicus*)
- Cycads (*Cycas and Zamia* species)
- Dracaena species
- Dunlopia (*Dieffenbachia amoena*)
- Elephant's Ear (*Colocasia* spp.)
- Fiddleleaf fig (*Ficus lyrata*)
- Golden pothos (*Scindapsus aureus*)
- Ivy (*Hedera* species)
- Norfolk Island Pine (*Araucaria heterophylla*)
- Philodendron species
- Pothos (*Epinastia elatior*)
- Rubber tree (*Hevea brasiliensis*)
- Sago palm (*Cycas revoluta*)
- Satin pothos (*Scindapsus pictus*)
- Schefflera species (*Schefflera actinophylla*)
- Shamrock (*Oxalis* spp.)
- Peace lily (*Spathiphyllum*)
- Split-leaf philodendron (*Monstera deliciosa*)
- Taro (*Colocasia esculenta*)
- Ti plant (*Cordyline fruticose*)
- Tree philodendron (*Philodendron selloum*)
- Yew (*Taxus* spp.)

## Toxic House Plants

- Amaryllis (Hippeastrum* species and hybrids)
- Anthurium scherzerianum*
- Cycads (Cycas and Zamia* species)
- Clivia (Clivia miniata)*
- Crown of thorns (Euphorbia milii)*
- Cyclamen*
- Hyacinth (Hyacinthus* species and hybrids)
- Jerusalem Cherry (Solanum pseudocapsicum)*
- Aloe vera (Aloe barbadensis)*
- Jade plant (Crassula ovata)*
- Kalanchoe* species



# Poisonous Plants Common in Arizona Gardens and Homes

## Poisonous Native Plants

To name but a few...

- Locoweeds
- Death camas
- Lupine
- Nightshade
- Larkspur
- Water hemlock
- Milk weeds
- Senecio



*Mirabilis jalapa*  
Malati, 4 o'clocks

“The dose makes the poison”

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What plant has the  
most potent toxin?  
**ABRIN**

Rosary Pea  
*Abrus precatorius*

Toxin - Abrin



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Castor oil plant  
*Ricinus communis*



**RICIN**



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# Poisonous Plants Common in Arizona Gardens and Homes

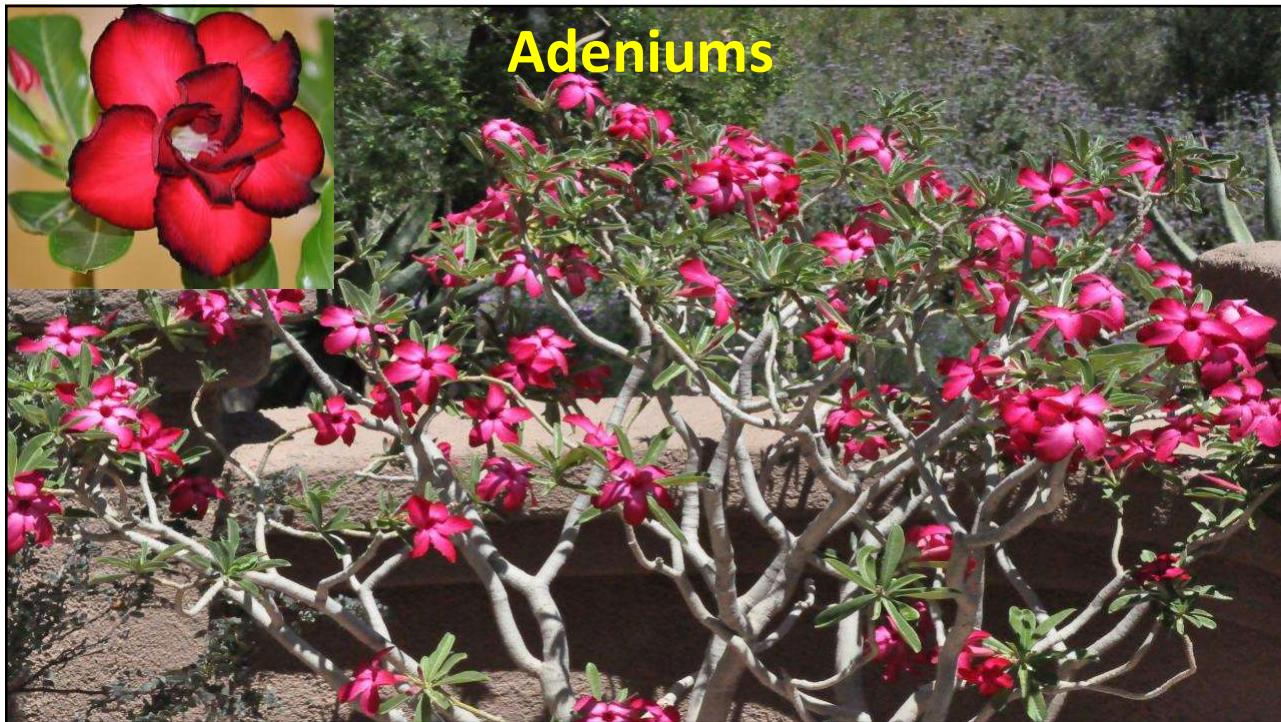
Cardenolides are concentrated  
in the leaves, flowers and seeds

Heart dysrhythmia  
Death



Is compost made from  
oleander leaves safe to use  
on a vegetable garden ?

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**Desert rose**  
*Adenium* species  
Many hybrids

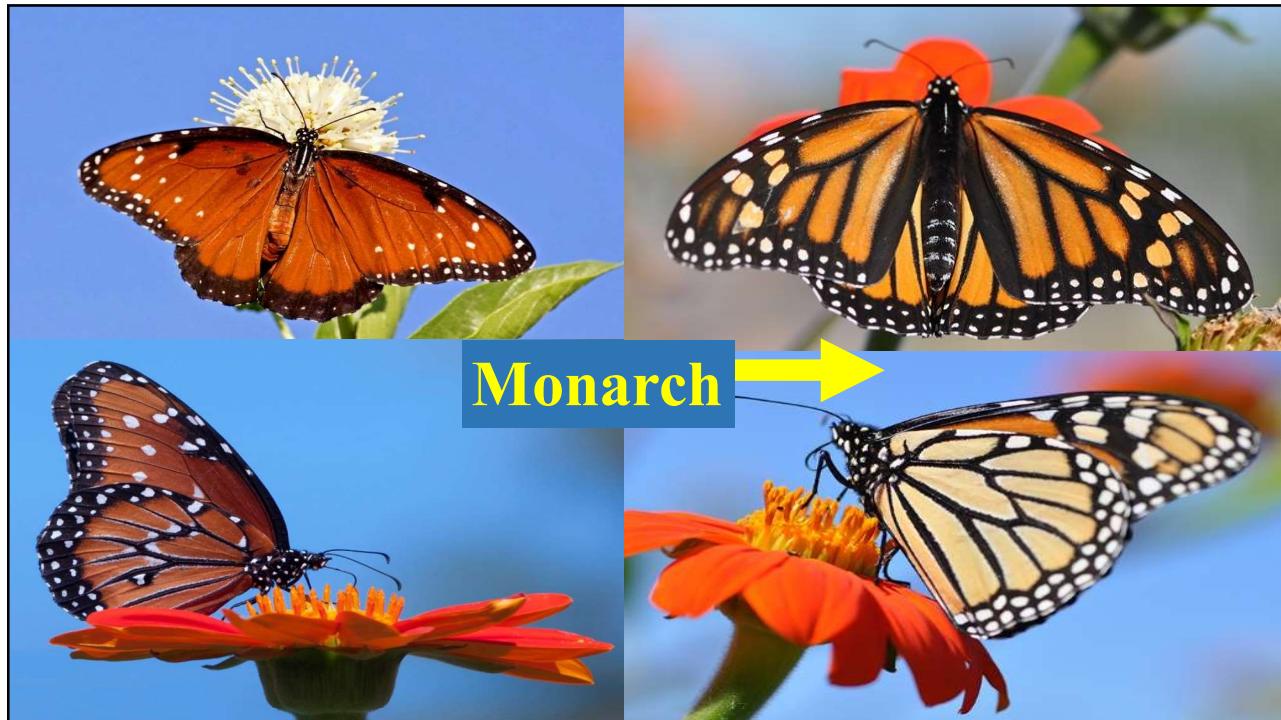
Many Cardiotoxic alkaloids  
in all parts of the plant

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Milk weeds – *Asclepias* species



All are cardio-toxic



# Poisonous Plants Common in Arizona Gardens and Homes



## 10 of the world's most Deadly Plants

- Castor bean
- Water hemlock
- Poison hemlock
- Yew
- Oleander
- Monk's hood
- White snake root
- Angel's trumpet
- Carolina jasmine
- Manchineel, manzanilla de la muerte
- Suicide tree (*Cerbera odollam*)

<http://io9.gizmodo.com/5841540/10-of-the-worlds-deadliest-plants---and-how-they-kill-you>

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Peyote – *Lophophora williamsii*

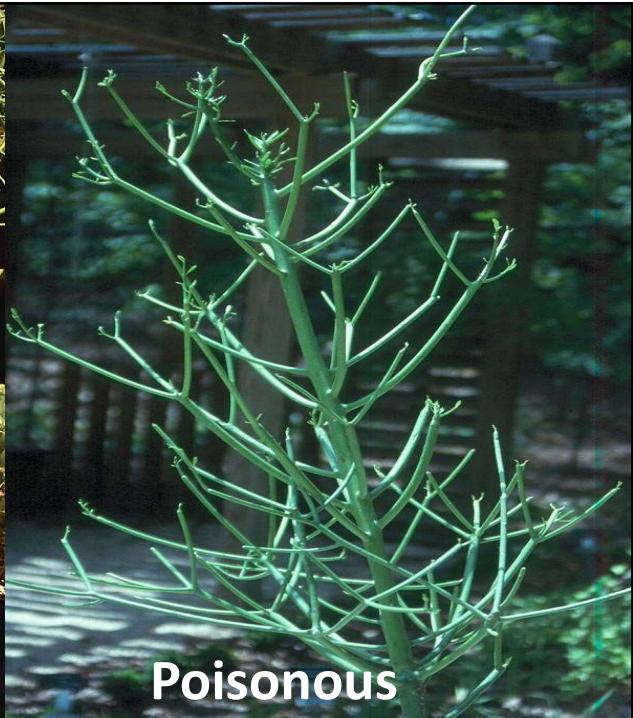


Mescaline  
Psychoactive

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*Euphorbia tirucalli*  
Pencil cactus  
'Sticks of Fire'



# Poisonous Plants Common in Arizona Gardens and Homes



**Slipper plant, Gallito**  
*Euphorbia tithymaloides*  
(*Pedilanthus tithymaloides*)  
**Euphorbiaceae**

Irritant sap



**Candelabra Cactus**  
*Euphorbia lactea*

Irritant sap

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**Christ thorn**  
*Euphorbia milii*



**Myrtle spurge**  
*Euphorbia myrsinifolia*



## Aloes

Over 450 species

### *Aloe barbadensis (Aloe vera)*

The sap contains potent purgatives

- Barbalin (anthraquinone) converted by intestinal bacteria to Aloe-emodin.

# Poisonous Plants Common in Arizona Gardens and Homes

**Ipomoea species**  
**Morning Glory**

**Lysergic alkaloids**  
**Psychoactive**



**Not Poisonous**

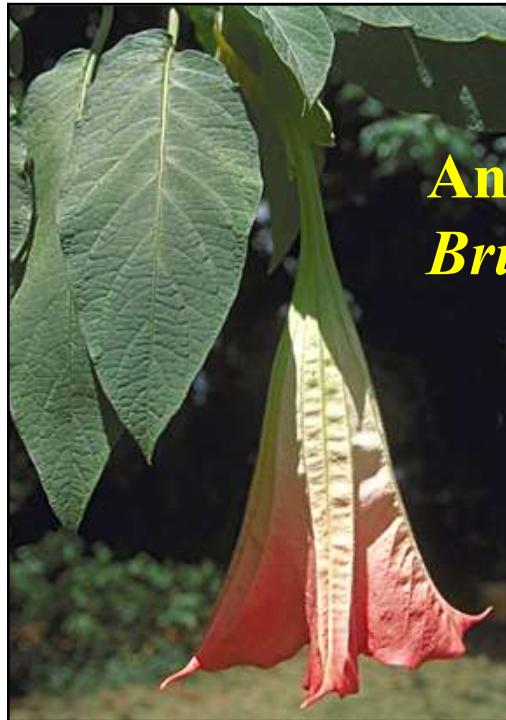
**Poinsettia**  
***Euphorbia pulcherrima***



# Poisonous Plants Common in Arizona Gardens and Homes



# Poisonous Plants Common in Arizona Gardens and Homes



Angel's Trumpet  
*Brugmansia* hybrid



Carolina Jessamine  
*Gelsemium sempervirens*

Contains potent alkaloids  
*Gelseminine* and  
*Gelsemine*.  
– similar to strychnine

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Daily Mail.com

## Murder by heartbreak grass: Was Russian exile who dropped dead at Surrey mansion a victim of the nearest thing to a perfect poison?

- Alexander Perepilichny, 44, collapsed and died while out jogging in 2012
- Tycoon somehow ingested Gelsemium, a toxic plant that grows in China
- There are claims he was murdered by assassins using 'heartbreak grass'

By ANDREW MALONE FOR THE DAILY MAIL

PUBLISHED: 19:23 EST, 19 May 2015 | UPDATED: 02:51 EST, 20 May 2015

### Russian Mafia whistleblower poisoned by a plant called Heartbreak Grass

Police deny covering up death of Alexander Perepilichny



**Heartbreak grass' was used to kill Chinese tycoon Long Liyuan.  
It was administered during lunch in his favourite dish, slow-boiled cat stew.**



**Heartbreak grass  
*Gelsemium elegans***

Gelsemium species contains two potent alkaloids, Gelseminine and Gelsemine.  
– similar to strychnine  
Acts primarily on the anterior cornus of grey matter of the spinal cord causing respiratory arrest and death.

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**Carolina Jessamine**  
*Gelsemium sempervirens*



**Heartbreak grass**  
*Gelsemium elegans*



**Rankin's trumpet flower  
swamp jessamine**  
*Gelsemium rankinii*



**Corral Bean**  
*Erythrina species*

All parts of the plant and especially  
the red seeds are poisonous  
Toxic alkaloids cause paralysis

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**Lantana**  
*Lantana camara*

Liver toxin



**Brazilian Rain Tree, Yesterday-today and tomorrow**

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## *Brunfelsia pauciflora*

‘Yesterday-today and tomorrow’

Toxicity  
Seizures  
Depression  
Hypotension  
Paralysis

## Kalanchoes

Crassulaceae

Toxin - Cardiotoxic bufadienolides

### *Kalanchoe thyrsiflora*



### *Kalanchoe blossfeldiana*



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Kalanchoe spp.



Chinese/Japanese Bamboo  
*Nandina domestica*

*Cyanogenic glycosides*  
*Respiratory depression*  
*Seizures in dogs*

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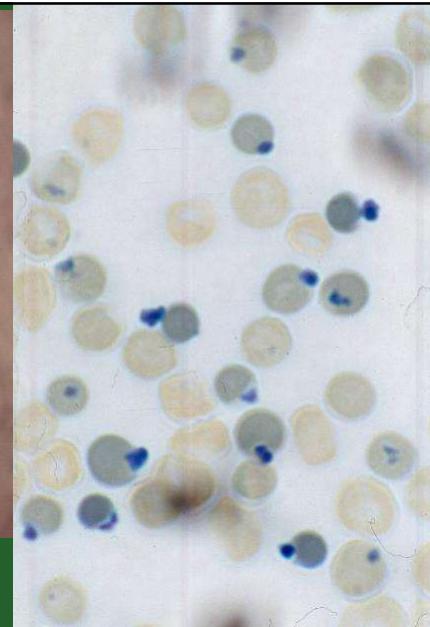
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Onions  
*Allium species*



Onions - *Allium cepa*

N-propyl disulfide - toxic to **CatS**, dogs, livestock

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**Wisteria**  
*Wisteria sinensis*



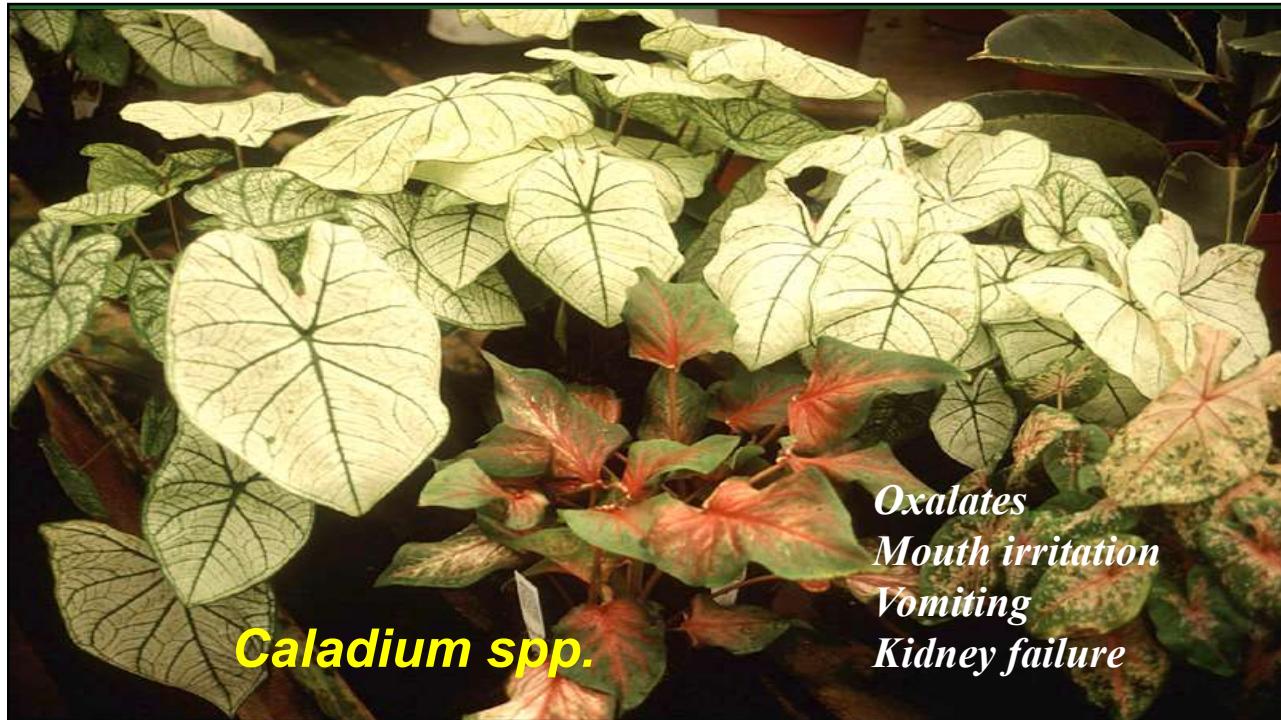
**Wisteria**  
*Wisteria sinensis*

*All parts are toxic*  
*Gastroenteritis*

# Poisonous Plants Common in Arizona Gardens and Homes



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# Poisonous Plants Common in Arizona Gardens and Homes



*Aglaonema spp.*



*Oxalis spp.*



*Colocasia spp.*



*Arisaema spp.*

Oxalates  
Mouth irritation  
Vomiting  
Kidney failure



*Caryota spp.*

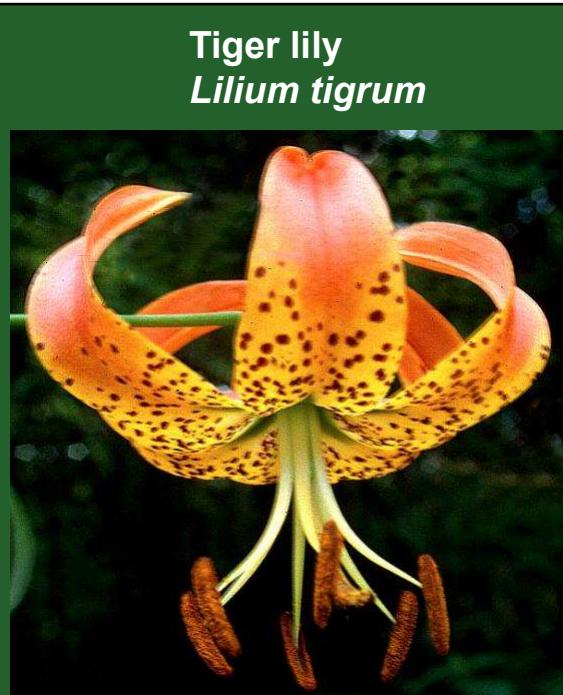
What is the most poisonous plant cats are commonly exposed to in households?



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Easter lily  
*Lilium longiflorum*



Tiger lily  
*Lilium tigrum*

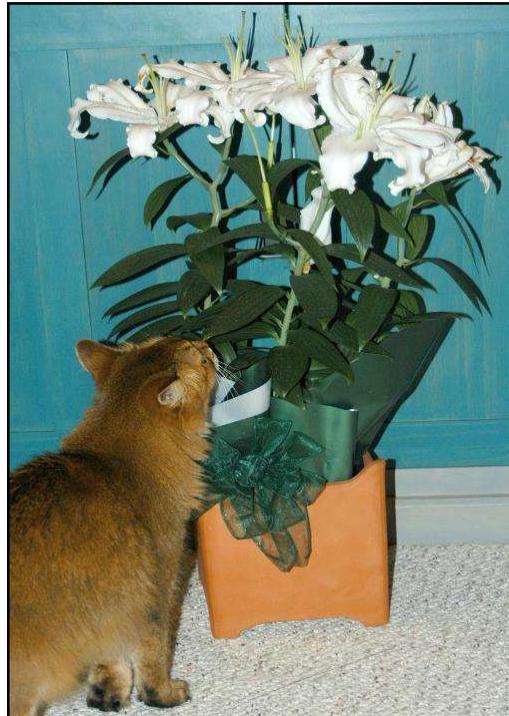
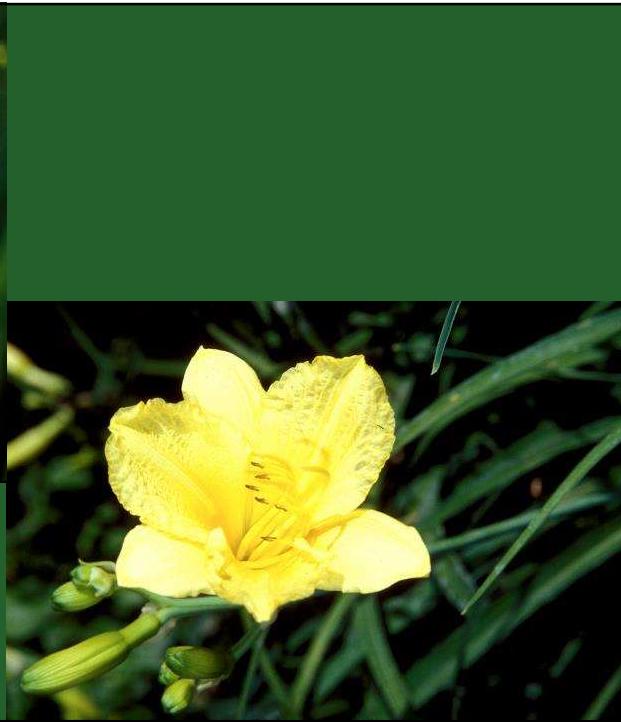


All *Lilium* species are toxic to cats  
until proven otherwise.

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*Day Lilies*  
*Hemerocallis species*  
*Poisonous to cats*



**Cats are highly susceptible  
Dogs are not!**

**Toxin unknown  
Leaves and flowers are toxic**

**3 clinical phases  
Anorexia, salivation, vomiting,  
depression.**

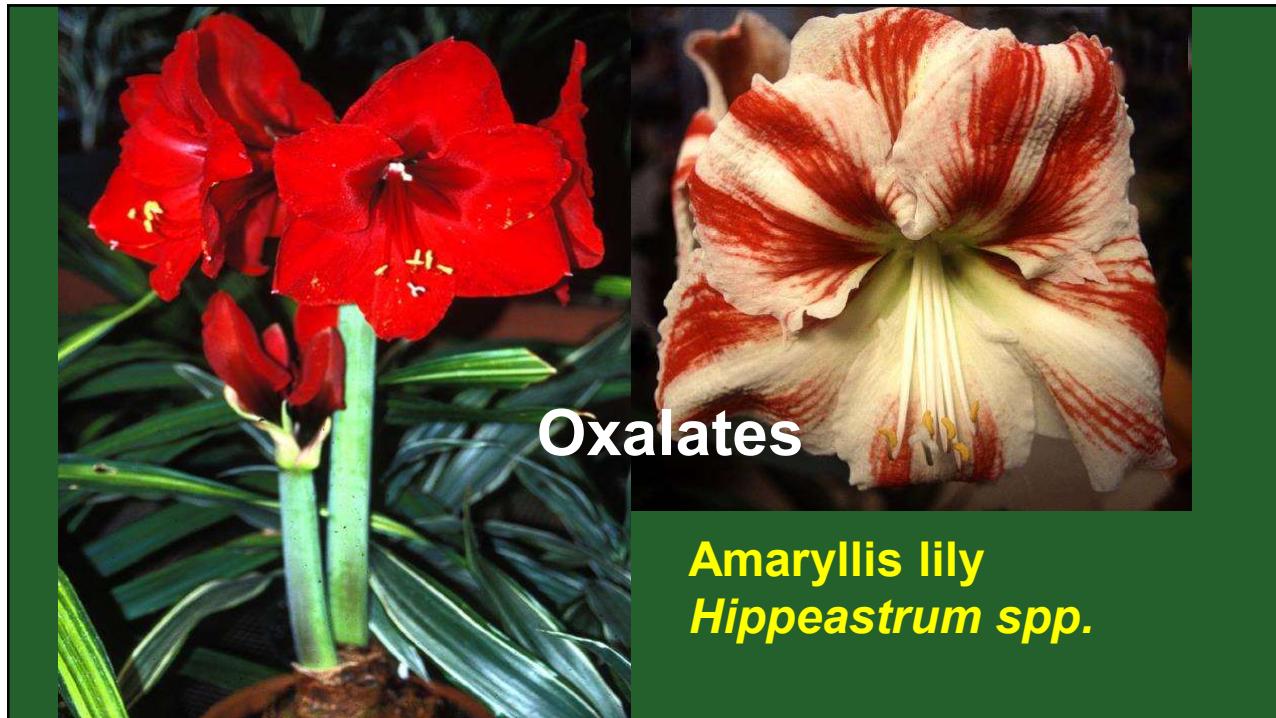
**Polyuria leading to dehydration.**

**Acute kidney failure  
Death.**

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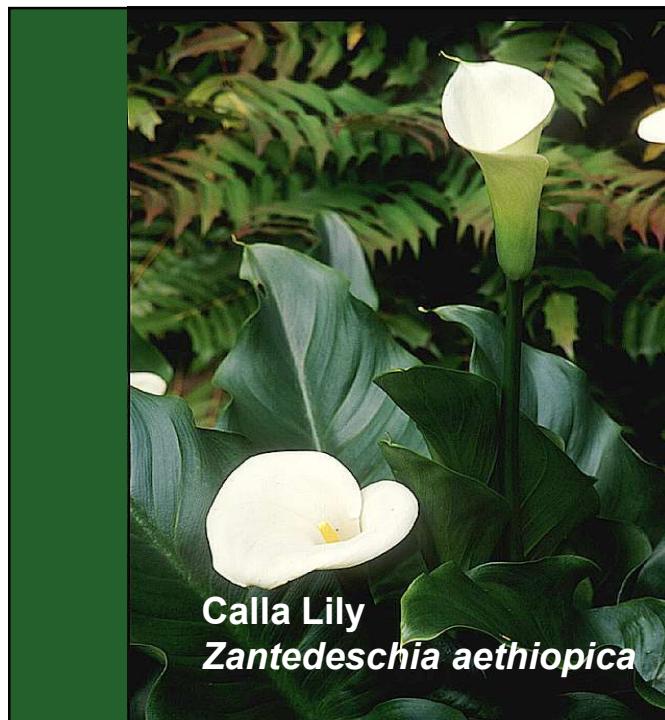


Plant Bulbs  
are always a  
risk especially  
to dogs.



Amaryllis lily  
*Hippeastrum spp.*

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Calla Lily  
*Zantedeschia aethiopica*



**Oxalates**  
**Mouth irritation**  
**Vomiting**  
**Kidney failure**



**Clivia lily**  
*Clivia miniata*  
(Amaryllidaceae)



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Salivation  
Vomiting  
Diarrhea  
Hypotension  
Depression



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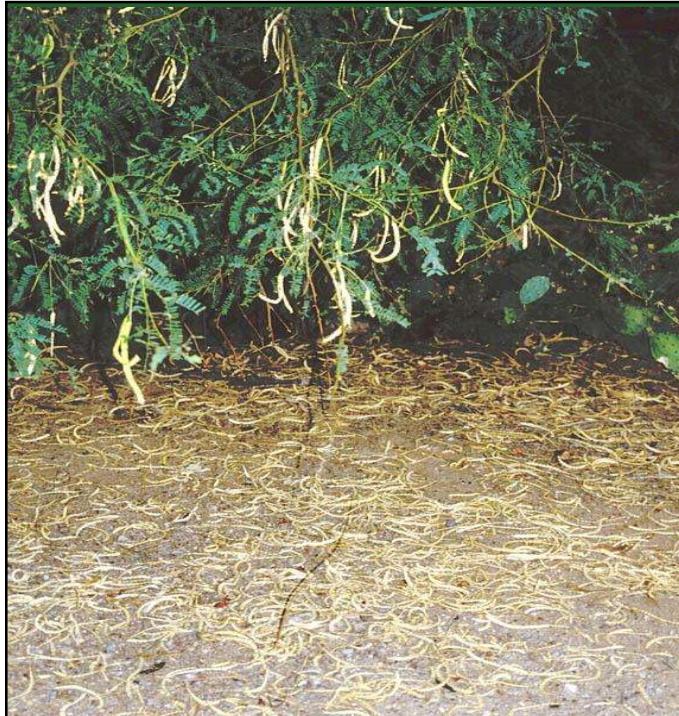
- Toxin - Persin  
Inhibits Na/K<sup>+</sup> ATPase?
- Leaves toxic  
Ripe fruit not toxic
- Horses, goats, cattle  
Birds, rabbits
- Myocardial necrosis  
Horses – edema head/neck  
Sterile mastitis – necrosis of mammary epithelium
- Sudden death



Milky sap is an irritant.  
- Salivation, Diarrhea

Cardiotoxic

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Mesquite  
*Prosopis spp.*

Phytobezoar



China berry  
*Melia azadarach*



# Poisonous Plants Common in Arizona Gardens and Homes

## China berry *Melia azadarach*



Meliatoxins  
Sudden death

Less acute signs -  
Vomiting, diarrhea,  
Neurologic signs  
Paralysis

## Oak (*Quercus spp.*)

Gallotannins

Kidney failure



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Yew – *Taxus species*



Yew - *Taxus japonicus*  
Cardiotoxic alkaloid Taxine



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*Zephyranthes grandiflora*



*Kallstroemia grandiflora*

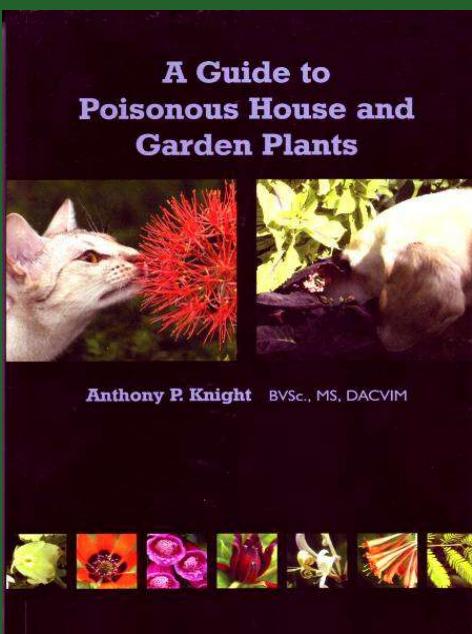


*Erythrina flabelliformis*

Southeastern Arizona Wildflowers  
and the Plants of the Sonoran Desert

<http://www.fireflyforest.com/flowers/category/poisonous-plants>

USDA Plant Database



Anthony P. Knight BVSc., MS, DACVIM

Available through:  
Teton New Media  
P.O. Box 4833  
Jackson  
Wyoming 83001-9965

Toll free 877 306 9793

[www.csuvth.colostate.edu/poisonous\\_plants](http://www.csuvth.colostate.edu/poisonous_plants)

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## Thank You



Coral Bean – *Erythrina spp.*