



Allergenic Plants in Southern Nevada

(Landscaping for an allergy free yard)

M. L. Robinson, Area Extension Specialist

The purpose of this publication is two fold. It will first explore general information on plants and their allergenic properties, and second, it will be a quick ready-reference to allergenic plants that could create a problem for you. Many people still believe that allergies are all in someone's mind. However, many are found in our own backyards. It is important to remember that pollens cause not all allergies. Dust, molds, mildews, and animals cause many.

There are many misconceptions in the Southern Nevada area about which plants do and do not contribute to allergy problems. One must first understand allergies and how people are affected. Determining what causes an allergy may be difficult for most people, as the reactions may take some time to surface. Most people have immediate reactions that show within thirty minutes. Others can have delayed reactions, taking many hours for symptoms to appear. Some allergenic reactions to newly introduced plants may take years before showing up.

Such was the case during World War II when US farmers began growing castor beans for the war effort. It was only after a few years that the real impact of the pollen from these large plantings of castor beans began to affect the people around the areas where they were growing. It has been known for years that olives and fruitless mulberries cause allergy problems in southern Nevada. Both of these trees grow well in the southern Nevada climate and soils. However, much of the population suffers from the allergens they produce. Part of the problem is that these trees have been overplanted, much like the WWII plantings of

that would have less pollen. Now they have been banned or highly discouraged in many communities.

Recently there has been an effort to find and use a pollen-free olive (Swan) but no known effort to find low-pollen producing fruitless mulberries. Male trees are often planted because people think they will require less care, as they do not produce messy fruit to clean up like the female trees. But the pollen they produce can be more of a problem for allergy sufferers. Some references suggest that trees and shrubs, such as ash, poplar, and willow, should not be planted because of the pollen the male trees produce. They overlook the fact that the female tree of the species would be just fine. With few or no males planted in the area, the fruit product is reduced or eliminated.

Part of the problem is that we keep searching and selecting what we think will be a maintenance free tree or shrub. By doing so, we often cause more problems. A dioecious tree or shrub is one that has male or female flowers on separate plants. Because the female and male flowers are found on separate trees, the males produce flowers with large quantities of pollen to insure pollination of the castor beans, without taking care to select those female plants. This factor makes our maintenance-free plants now an allergenic problem. Add this to all the other air pollution problems, and the combination becomes a serious problem in urban areas. Without good horticultural planning, city and state parks and developers can create problems that result in the suffering of many people.

The answer is not banning plants, but understanding how and why plants cause these problems, from a sound environmental horticultural perspective.

Allergy sufferers should not have to live in sterile landscapes with few if any plants. Landscapes can and should be beneficial to the total environment. When buying plants one should always buy by scientific name and check a good reference book. (See references at end) Sir Francis Bacon said that "Gardening is the purest of human pleasures" and so it should be, but will not be as long as one cannot go outside because of allergies.

Allergies will continue to be a problem as more of the population ages past 50. Those without allergies now will begin to develop them. This problem will continue to escalate as the population continues to age and people continue to be exposed to chemical pesticides, diesel fumes, and waste gases. Even the rubber particles that wear off auto tires contribute to the problem. It is interesting that these rubber particles can cause allergic reactions to the pollen of plants that are related to the true rubber tree in the landscape. There also seems to be a correlation between many of the desert legumes that are planted because they make their own nitrogen. They can also contribute to allergies with peanuts. Too much of anything may cause problems.

Avoidance is the key to allergy relief. There still are those who say there is little we can do to change this problem, as most air born pollen is from weeds that come in from undeveloped areas. It may seem unlikely that reducing the number of allergenic plants in a single yard would make a difference. However, a survey in San Luis Obispo, California, (by Thomas Leo Ogren) showed that the expected weeds that are blamed for allergies such as ragweed were not to be found. The allergy problems were from common landscape plants. This is true of Southern Nevada. It was found that a male pepper tree (*Shinus mollie*) in a yard exposed the homeowner to ten times the pollen than one in the neighbor's yard. Eliminating allergenic plants close to homes can reduce symptoms. What you plant does make a difference. Just as a new urban forest begins with a few trees planted in one yard, so does an allergenic free environment begin in one yard, and spread to an allergenic free city.

For more in-depth information, check your local library or bookstore for "Allergy-Free Gardening," by Thomas Leo Ogren, or the internet "Allergenic Plants in landscapes."

Criteria to look for when buying plants for the landscape (what not to buy):

1. Most plants that have off-white and greenish colored flowers depend on wind rather than insects to be pollinated.
2. Most male plants produce more pollen than complete flowered plants or monoecious (bi-sexual) plants.
3. Monoecious plants where the male flowers are below the female are also a problem.
4. Never plant medium and high rated allergenic plants near windows, especially bedroom windows.

Plants to look for:

1. Plants that have both female and male flower parts on the same flower (perfect flowers) or that have large or sticky pollen grains.
2. Flowers that are trumpets shaped (they contain the pollen deep in the trumpet) and depend on pollinators like humming birds.
3. Monoecious plants that have the pollen above the female flowers (like corn). They depend less on the wind for pollination and more on gravity.
4. Female plants (in dioecious plants those plants with male and female plants), have only female flowers. (Many of the banned plants are the males of these plants.)
5. Flowers that are fragrant have less pollen, as they depend on insects that are attracted by the fragrance to transfer the pollen from one flower to another.
6. Add diversity to your garden and encourage it in your community and parks.

The main reason that many of these offending trees and shrubs are a problem is because of over planting. Diversity is one way to alleviate this problem, and creates better urban wildlife areas.

Nature is diverse, and this helps prevent the rapid spread of destructive insects and disease that have one host throughout communities. Even a medium rated allergenic plant can be a problem if over planted.

7. Colorful flowers, as they are most often pollinated by insects or birds.
8. Choose grasses that are propagated vegetatively, and are only female.

Landscape maintenance to help with the problem:

The following list should help in achieving an allergy free yard. As most pollens travel only short distances just landscaping your yard with low allergen plants will help.

All species of grass that produce male flowers can be allergenic, but some like Bermuda are more prone to causing allergies.

1. If the grass is in the landscape now, mow it often to remove the pollen producing parts as they appear, and before they open. Allergenic grasses could be replaced with either non-flowering hybrids or female only cultivars.
2. Natives such as jojoba and rabbit bush are very allergenic. Just because a plant is native doesn't mean it is safe to use in the landscape.
3. Succulents and cacti do not produce wind born pollen, and are excellent low allergenic plants. They will also reduce water use.
4. Fruit trees are insect pollinated and are not allergenic to most people. However, nut trees are wind pollinated, and can be allergenic.

Other ways to reduce allergenic problems in the landscape:

1. Work in your yard only when pollen count is down. Cool, cloudy, windless days are best. Another good time is just after a rain, or when the humidity is high.
2. If you use an antihistamine nasal spray, do so prior to going outside. (Be sure to follow directions on the spray.) Wear goggles and/or a respirator mask to help.

3. Keep your hands away from your face (especially your eyes) while working in the yard.
4. Remove all flowering weeds.
5. Water soil and organic mulch to keep dust down.
6. Trim allergenic plants to help prevent flowering.
7. Use organic mulches such as wood chips and bark to cover bare soil.
8. Remove work clothes as soon as you finish the yard work. Place them in the washer. Then shower, including shampooing hair.

For further information:

M. L. Robinson
702-222-3130
robinsonm@unce.unr.edu

or www.unce.unr.edu/southern/

Botanical Name	Common Name
Acoelorrhaphe	Parouot Palm, Paurotis, Wrightii
Agapanthus	Lily Of The Nile
Alcea	Hollyhock
Allium	Chives, Flowering Garlic, Flowering Onion, Garlic
Aloe	
Amaryllis belladonna	Naked Lady, Belladonna Lily
Anisacanthus	Desert Honeysuckle
Antigonon	Coral Vine
Antirrhinum majus	Snapdragon
Aptenia cordifolia	Red-Apple Iceplant
Aquilegia	Columbine
Argemone	Prickly Poppy
Aspidistra elatior	Cast Iron Plant
Bauhinia spp	Orchid Tree
Beta vulgaris	Beets, Swiss Chard
Bougainvillea	Bougainvillea
Brachychiton spp	Bottle Tree
Brahea (Erythea) armata	Mexican Blue Palm
Brahea (Erythea) edulis	Guadalupe Fan Palm, Rock Palm
Buchloe dactyloides	Buffalo Grass (Female)
	Cactus Family
Callirhoe involucrate	Mallow Poppy
Campsis radicans	Trumpet Creeper
Capiscum	Bell Peppers, Chili Peppers
Carnegiea gigantean	Saguaro Cactus
Carpobrotus	Hottentot Fig, Ice Plant, Sea Fig
Catharanthus	Annual Vinca, Madagascar Periwinkle
Cephalocereus senilis	Old Man Cactus
Cephalophyllum)	Red Spike
Chamaedorea	Bamboo Palm
Chamaerops humilis	European Fan Palm
Chilopsos linearis	Desert Willow
Cilanthus puniceus	Parrot Beak
Clitoria	Butterfly Pea
Clivia	Kaffir Lily
Convolvulus enearum	Bush Or Ground Morning Glory
Convolvulus mauritanicus	Bush Or Ground Morning Glory
Crassula	Jade Plant
Cuphea sp.	Cigar Plant/Mexican Heather
Cycas	Sago Palms
Dalea greggii	Trailing Indigo Bush
Dalea spinosa	Smoke Tree
Datura	Angel Trumpet
Digitalis	Foxglove
Dracaena	Cordyline, Corn Plant, Dragon Tree
Echinocactus	Barrel Cactus
Ensete	Abyssinian Banana

Fragaria	Strawberry
Gleditsia triacanthos	Honey Locust
Ilex	Holly
Justicia californica	California Or Mexican Honeysuckle
Justicia ghies breghtiana	California Or Mexican Honeysuckle
Juniperus	Cedar, Habel, Juniper, Mountain Cedar, Ozark White Cedar, Red Cedar, White Cedar
Leucophyllum frutescens	Texas Rangers
Livistona	Chinese Fan Palm
Lontona montevidensis	Training Lontona
Mandevilla (Dipladenia)	
Morus alba	White Mulberry, Silkworm Mulberry (Female)
Morus rubra	American Mulberry, Purple Mulberry, Red Mulberry
Myoporum	
Nandina domestica	Heavenly Bamboo
Nannorrhops	Mazari Palm
Nelumbo	Lotus
Nymphaea	Water Lily
Oxalis	Shamrock, Sorrel, Wood Sorrel
Petunia	Petunia
Phoenix dactylifera	Date Palme (Female)
Phormium tenax	New Zeland Flax
Podocarpus	Fern Pine, Yew Pine
Populus	Aspen, Cottonwood Poplar
Prunus armeniaca	Apricots
Punica granatum	Pomegranate
Rhapis	Lady Palm
Rosa Banksiae	Lady Banks Rose
Ruellia californica	California Ruellia
Ruellia peniwsularis	Mexican Ruelia
Salix alba	White Willow
Salix pendulina	
Salvia	Creeping Sage, Greasewood, Mexican Bush Sage, Pinapple Sage, Purple Sage, Ramona, Sage, Scarlet Sage, Vervain
Sphaevalcea spp	Globe Mallow
Strelitzia	Bird-Of-Paradise
Teucrium chamaeduys	Germander
Trachycarpus	Windmill Palms
Verbena sp	Verbena
Veronica	Brooklime, Speedwell
Vigna	Snail Vine
Vinca	Periwinkle, Myrtle
Viola	Johnny-Jump-Up, Pansy, Viola, Violet
Yucca	Adam's Needle, Banana Yucca, Blue Yucca, Dagger Plant, Joshua Tree, Needle Palm, Palm Lily, Palm Pita, Roman Candle, Soap Tree, Sopawell, Spanish Bayonet

Morus Rubra	American Mulberry, Purple Mulberry, Red Mulberry
Murraya Paniculata	Mock Orange, Orange Jessamine
Narcissus	Daffodil
Nepeta	Catmint, Catnip
Nerium Oleander	Oleander
Nolina Longifolia	Mexican Grass Tree
Oenothera	Evening Primrose
Osteospermum	African Daisy
Papaver	Poppy
Parkinsonia Aculeate	Jerusalem Thorn, Mexican Palo Verde
Parathenium Argentatum	Guayule
Parthenocissus	Boston Ivy, Virginia Creeper, Woobine
Passiflora	Maypop, Passion Flower, Passion Fruit
Paulownia Tomentosa	Empress Tree
Perlargonium	Geranium
Philadelphus	Mock Orange
Phlomis Fruticosa	Jerusalem Sage
Phlox	Phlox
Phoenix Dactylifera	Date Palm
Phoenix Canariensis	Canary
Photinia	Red Top
Pinus	Pine, Pinon, Pinon Nut Tree
Pittosporum	Mock Orange
Plumbago Auriculata	Cape Plumbago
Primula	Primrose
Prunus Avium, Prunus Cerasus	Cherries
Prunus Domestica, Prunus Insititia	Plums
Prunus Persica	Peach, Nectarine
Prunus Tomentosa	Nanking Cherry
Pyracantha	Firethorn
Pyrethrum	Painted Daisy
Quercus	Oak
Ranunculus	Buttercups, Crowfoot, Persian Ranunculus
Rheum	Rhubarb
Rhaphiolepis Indica	India Hawthorne
Rhapis	Bamboo Palm, Lady Palm, Miniature Fan Palm, Slender Lady Palm
Rhododendron	Azalea, Rhododendron
Robinia	Black Locust, Flase Acacia, Gummy Acacia, Locust, Silver Chian Tree, Smooth Rose Acacia, Whya Tree
Rosmarinus Officinalis	Rosemary
Sabal	Bermuda Palm, Bush Palm, Oaxaca Palmetto, Puerto-Rican Hat Palm, Scrub Palmetto, Sonoran Palm, Texas Palm
Schinas	Pepper Tree
Spinacia	Spinach
Spiraea	Bridal Wreath
Stenotaphrum Secundatum	St. Augustine Grass
Stokesia Laevis	Stokes Aster
Tagetes	Marigold

Tamarix	Salt Cedar, Tamarisk
Taraxacum Officinale	Dandelion
Tecomaria Capensis	Cape Honeysuckle
Thuja	Aborvitae, Thuya, Western Red Cedar, White Cedar
Tithonia Rotundifolia	Mexican Sunflower
Torenia	Bluewings, Wishbone Flower, Wishbone Plant
Tulbaghia Violacea	Society Garlic
Tulipa	Tulip
Ulmus	Elm
Vauquelinia Californica	Arizona Rosewood

High Allergens

Botanical Name	Common Name
Acacia	Baily's And Golden
Agrostis	Bent Grass
Ambrosia maritime	Pageweed
Atriplex	Desert Holly, Quailbush, Saltbush
Baccharis pilularis	Coyote Brush
Buchloe dactyloides	Buffalo Grass (Male)
Casuarina	Beefwood, She-Oak, Horsetail Tree
Chamaerops humilis	Mediterranean Fan Palm
Cynodon dactylon	Bermuda Grass (Male)
Elaeagnus angustifolia	Russian Olive
Festuca glauca	Blue Fescue
Forestiera	Desert Olive, Swamp Privet (Male)
Fraxinus Americana	White Ash
Juniperus	Cedar, Habbel, Juniper, Moutain Cedar, Ozark White Cedar, Red Cedar, White Cedar
Lolium	Darnel, Ryegrass
Morus alba	White Mulberry, Silkworm Mulberry (Male)
Morus platanifolia	
Olea europaea	Olive (All But Swan)
Paspalum	Bahia Grass, Dallis Grass
Pennisetum setaceum	Fountain Grass
Pennisetum clandestinum	Fountain Grass
Phalaris	Canary Grass, Canary Reed Grass
Platanus	Sycamore
Poa	Bluegrass
Podocarpus	Fern Pine, Yew Pine
Populus	Aspen, Cottonwood, Poplar
Prosopis	Mesquite, Screw Bean, Tornillo
Prunus communis	Almonds
Quercus	Oak (Including Live Oak)
Ricinus communis	Castor Bean, Castor Oil Plant
Salix aegyptiaca	Willow
Salix 'Austree Hybrid'	Willow
Sambucus	Elderberry
Schinus	Pepper Tree
Trachycarpus	Windmill Palms

Botanical Name	Common Name
Achillea	Yarrow
Agastache	Giant Hyssop
Agave	Century Plant, Rhino's Horn
Albizia Julibrissin	Mimosa, Silk Tree
Alyogyne Huegelii	Blue Hibiscus
Amaranthus	Annual Amaranthus
Araucaria	Bunya-Bunya, Monkey Puzzle Tree
Arbutus	Madrone, Strawberry Tree
Archontopphoenix	Alexandra Palm, King Palm
Arctostaphylos	Manzanita, Bearberry
Arctitegca Calendula	Cape Weed
Arctotis	African Daisy
Arecastrum Romanzoffianum	Queen Palm
Arenga	Sugar Palm
Aristolochia	Dutchman's Pipe Vine
Asclepias	Butterfly Weed, Goose Plant, Milkweed
Asparagus	Edible And Ornamental
Aster	Aster
Bauhinia	Orchid Tree
Brugmansia	Angel Trumpet, Datura
Butia Capitata (Coccus Australis)	Jelly Palm, Pindo Palm
Buxus	Box, Boxwood
Caesalpinia	Bird-Of-Paradise Bush, Poinciana
Caladium Bicolor	Caladium
Calliandra	
Callicarpa Bodinieri Giraldi	Beautyberry
Canna	Canna
Cantua Buxifolia	Flower-Of-The-Incas, Magic Flower
Caragana Aborescens	Siberian Peashrub
Carpinus	Hornbeam
Caryota	Fishtail Palms, WINE PALM
Cassia	Candle Bush, Senna
Catalpa	
Ceanothus	Wild Lilac
Centaurea	Bachelor's Button, Dusty Miller
Ceratonia Silique	Carob Tree
Ceridium	Palo Verde
Cercis	Redbud
Chamaedorea	Bamboo Palm
Chilopsis Linearis	Desert Willow
Chitalpa	Hybrid -
Choisya Ternate	Mexican Orange

Crinum	Spider Lily
Cycas	Sago Palms
Dahlia	Dahlia
Dianthus	Carnations, Pinks, Sweet Williams
Dieffenbachia	Dumb Cane
Drosanthemum	Iceplant
Echinacea Purpurea	Purple Cornflower
Echium Fastuosum	Pride Of Madeira
Eriobotrya	Loquat
Erythirina	Coral Trees
Eucalyptus	Gum Trees, Ironbark, Mallee, Pappermint Willow, Sally, Yate
Fatshedera Lezei	Fatshedera
Fatsia Juponica	Japanese Aralia
Feijoa Sellowiana	Pineapple Guava
Festuca Elatior	Tall Fescue
Forsythia	Golden Bells
Gaillardia	Blanket Flower
Gardenia	Gardenia
Gazania	Ganznia
Geijera Parviflora	Australian Willow, Wigla
Gelsemium Sempervirens	Carolina Jessamine
Geranium	Cranesbill, True Geraniums
Gerbera Jamesonii	Transvaal Daisy
Gladiolus	Glads
Gleditsia Triacanthos	Honey Locust
Grevillea	Silk Tree
Hedera Canariensis	Algerian Ivy
Hedera Helix	English Ivy
Helianthus	Sunflower
Hemerocallis	Daylily
Hibiscus	Althea, Mallow, Rose-Of-Sharon
Hippeastrum	Amaryllis
Howea	Kentia Palm, Paradise Palm, Sentry Palm
Ilex	Holly
Ipomoea (Calonyction Quamoclit)	Morning Glory
Iris	
Lagerstroemia Indica	Crape Myrtle
Lantana	
Larrea Tridentate	Creosote Bush
Lavandula	Lavender
Medium Allergens, Continued...Leonotis	Lion's Ear, Lion's Tail
Leptospermum	Tea Tree
Liatris	Gayfeather
Ligustrum	Privet
Lilium	Lilies
Limonium	Sea Lavender, Statice
Lonicera	Honeysuckle
Lotus	Parrot Beak, Trefoil
Lupinus	Lupine
Lysiloma Thornberi	Feather Brush
Macfadyena Unguis-Cati (Doxantha)	Cat's Claw, Yellow Trumpet Vine
Mandevilla (Dipladenia)	Mandevilla
Melaleuca	Bottlebrush, Honey Myrtle, Cajeput
Mesperaloe Parviflora	Red Yucca
Mirabilis Jalapa	Four O'clock

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