



ARIZONA CENTRAL HIGHLANDS PLANT HERBIVORY SERIES

Deer Plant Resistance Ratings

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Although deer (*Odocoileus* species) can be entertaining to watch, they can also cause considerable damage to our landscape and garden plants. As the diets of these animals change with wild food availability, yearly precipitation and temperature variations, it can be difficult to predict which plants will be appealing for consumption. Additionally, plants may be more desirable when they are young and/or well fertilized. Due to this variability, instead of creating a straightforward list of plants in which herbivory is described in a “yes” or “no” fashion, a survey of both the existing literature on the subject and first-hand community experience was conducted. The results from that survey are presented in this publication as a percentage of those responses, which may be used to infer probability of herbivory.

Also of note is that while the local data collected is focused on rocky mountain mule deer (*Odocoileus hemionus*) and desert mule deer (*O. eremicus*), sources from outside of the intermountain west may be referring to white-tailed deer (*O. virginianus*).

While there are some products and home remedies that purport to repel and/or discourage deer, due to the fact that herbivory can be so variable year to year, the only way to ensure that plants are protected from herbivory is to exclude them from the area with a properly designed fence or other barrier. For more information on fencing design, please see [AZ1855](#).

Materials and Methods

Data were collected from multiple sources (books, websites, social media and surveys), many of which are also reporting data from their own sources, though only tallied as a single response. The goal was to obtain herbivory data from previous research on deer and from Arizona residents and businesses with direct experience with the animals. “n” represents the number of data sources (see sources) who provided input; the larger the n value, generally the greater our confidence in the reported probability of damage, though as stated earlier, a single source could be an aggregate of several. Because animal behavior can vary based on several variables such as temperature and rainfall, these plant data have been categorized as “**never to rarely damaged**”, “**sometimes damaged**” and/or “**frequently damaged**”, with percentages based on the number of responses for each plant.

Annual	% Probability of Damage		
	Never to Rarely Damaged %	Sometimes Damaged %	Frequently Severely Damaged %
Alyssum (Alyssum sp.) n=13	61.54%	30.77%	7.69%
Amaranth (Amaranthus sp.) n=1	100.00%	0.00%	0.00%
Angel Trumpet (Datura wrightii) n=13	100.00%	0.00%	0.00%
Balsam (Impatiens sp.) n=3	100.00%	0.00%	0.00%
Basil (Ocimum basilicum) n=10	70.00%	30.00%	0.00%
Begonia (Begonia sp.) n=6	66.67%	16.67%	16.67%
Borage (Borage officinalis) n=4	50.00%	50.00%	0.00%
Broccoli (Brassica sp.) n=2	100.00%	0.00%	0.00%
Cabbage (Brassica sp.) n=1	0.00%	0.00%	100.00%
California Poppy (Eschscholzia californica) n=18	66.67%	16.67%	16.67%
Chili pepper (Capsicum annuum) n=1	100.00%	0.00%	0.00%
Cleome (Cleome hasslerana) n=3	66.67%	33.33%	0.00%
Cock's Comb (Cleome hasslerana) n=2	50.00%	50.00%	0.00%
Coleus (Coleus sp.) n=1	0.00%	100.00%	0.00%
Corn (Zea mays) n=5	40.00%	20.00%	40.00%
Cornflower, Bachelor's button (Centaurea cyanus) n=6	33.33%	16.67%	50.00%
Cosmos (Cosmos sp.) n=5	40.00%	40%	20%
Cranesbill (Geranium sp.) n=8	75.00%	12.5%	12.5%
Cucumbers (Cucumis sativus) n=1	100.00%	0.00%	0.00%
Dahlia (Dahlia sp.) n=11	45.45%	36.36%	18.18%
Dill (Anethum graveolens) n=2	50.00%	50.00%	0.00%
Eggplant (Solanum melongena) n=1	100.00%	0.00%	0.00%
Flowering Tobacco (Nicotiana sp.) n=4	100.00%	0.00%	0.00%
Forget-me-not (Myosotis scorpiodes) n=5	80.00%	20.00%	0.00%
French marigold (Tagetes patula) n=2	50.00%	50.00%	0.00%
Gazania, Colorado Gold (Gazania) n=4	75.00%	25.00%	0.00%
Gerbera Daisy (Gerbera jamesonii) n=4	0.00%	50.00%	50.00%

Annual continued	% Probability of Damage		
Plant Name & Number of Data Points	Never to Rarely Damaged %	Sometimes Damaged %	Frequently Severely Damaged %
Gourd (Cucurbitaceae) n=3	66.67%	33.33%	0.00%
Heliotrope (Heliotropum arborescens) n=2	100.00%	0.00%	0.00%
Icelandic Poppy (Papaver nudicaule) n=1	0.00%	100.00%	0.00%
Impatiens (Impatiens walleriana) n=4	25.00%	75.00%	0.00%
Lantana (Lantana sp.) n=10	80.00%	10.00%	10.00%
Larkspur (Delphinium sp.) n=9	66.67%	33.33%	0.00%
Lobelia (Lobelia sp.) n=4	25.00%	50.00%	25.00%
Marigold (Tagetes sp.) n=13	69.23%	30.77%	0.00%
Melons (Cucurbitaceae) n=3	66.67%	33.33%	0.00%
Morning glory (Ipomea sp.) n=7	85.71%	14.29%	0.00%
Nasturtium (Tropaeolum majus) n=6	33.33%	33.33%	33.33%
Pansies (Viola sp.) n=7	42.86%	14.29%	42.86%
Peas (Pisum sativum) n=3	33.33%	0.00%	66.67%
Petunia (Petunia sp.) n=10	60.00%	10.00%	30.00%
Pot marigold (Calendula sp.) n=5	80.00%	20.00%	0.00%
Potato Solanum tuberosum) n=2	100.00%	0.00%	0.00%
Pumpkin (Cucurbita sp.) n=4	50.00%	25.00%	25.00%
Purslane (Portulaca oleracea) n=3	33.33%	33.33%	33.33%
Salvia (Salvia sp.) n=14	85.71%	14.29%	0.00%
Snapdragon (Antirrhinum majus) n=12	75.00%	16.67%	8.33%
Spinach (Spinacia oleracea) n=5	40.00%	20.00%	40.00%
Squash (Cucurbita sp.) n=3	100.00%	0.00%	0.00%
Stock (Matthiola sp.) n=1	0.00%	100.00%	0.00%
Straw flower (Helichrysum bracteatum) n=4	100.00%	0.00%	0.00%
Sunflower (Helianthus sp.) n=13	46.15%	38.46%	15.38%
Sweet alyssum (Lobularia maritima) n=3	100.00%	0.00%	0.00%
Sweet peas (Lathyrus odoratus) n=1	100.00%	0.00%	0.00%
Tomato (Solanum lycopersicum) n=6	66.67%	16.67%	16.67%
Verbena (Verbena sp.) n=14	85.71%	7.14%	7.14%
Viola (Viola sp.) n=6	33.33%	33.33%	33.33%
Zinnia (Zinnia sp.) n=10	60.00%	40.00%	0.00%

Biennial	% Probability of Damage		
Plant Name & Number of Data Points	Never to Rarely Damaged %	Sometimes Damaged %	Frequently Severely Damaged %
Foxglove (Digitalis sp.) n=13	84.62%	15.38%	0.00%
Hollyhock Alcea sp.) n=17	41.18%	29.41%	29.41%
Scarlet gilia (Ipomopsis aggregata) n=1	0.00%	100.00%	0.00%
Sweet William (Dianthus barbatus) n=7	71.43%	14.29%	14.29%

Bulb	% Probability of Damage		
Plant Name & Number of Data Points	Never to Rarely Damaged %	Sometimes Damaged %	Frequently Severely Damaged %
Caladium (Caladium sp.) n=1	0.00%	100.00%	0.00%
Calla lily (Zantedeschia sp.) n=2	50.00%	50.00%	0.00%
Canna Lily Canna sp.) n=1	0.00%	100.00%	0.00%
Crocospia (Crocospia sp.) n=1	0.00%	100.00%	0.00%
Crocus (Crocus sp.) n=11	72.73%	27.27%	0.00%
Daffodil (Narcissus sp.) n=24	87.50%	12.50%	0.00%
Fritillaria n=1	100.00%	0.00%	0.00%
Gladiola (Gladiolus sp.) n=1	0.00%	100.00%	0.00%
Grape Hyacinth (Muscari sp.) n=11	45.45%	36.36%	18.18%
Hyacinth (Hyacinthus sp.) n=6	16.67%	83.33%	0.00%
Naked lady (Hyacinthus sp.) n=3	100.00%	0.00%	0.00%
Ornamental onion (Alliums sp.) n=11	90.91%	0.00%	9.09%
Snowdrops (Galanthus nivalis) n=2	100.00%	0.00%	0.00%
Squill (Bluebells) (Scilla sp.) n=4	100.00%	0.00%	0.00%
Tulip (Tulip sp.) n=12	16.67%	25.00%	58.33%
Winter Aconite (Eranthus hyemalis) n=2	100.00%	0.00%	0.00%

Grass and Sedge	% Probability of Damage		
Plant Name & Number of Data Points	Never to Rarely Damaged %	Sometimes Damaged %	Frequently Severely Damaged %
Bamboo (Bambusa sp.) n=5	80.00%	20.00%	0.00%
Big bluestem (Andropogon) n=3	100.00%	0.00%	0.00%
Blue Fescue (Festuca sp.) n=9	100.00%	0.00%	0.00%
Deergrass (Muhlenbergia rigens) n=4	100.00%	0.00%	0.00%

Grass continued	% Probability of Damage		
Plant Name & Number of Data Points	Never to Rarely Damaged %	Sometimes Damaged %	Frequently Severely Damaged %
Feather Reed Grass (Calamagrostis sp.) n=5	100.00%	0.00%	0.00%
Fountain grass (Pennisetum alopecuroides) n=3	100.00%	0.00%	0.00%
Little bluestem (Schizachyrium scoparium) n=3	100.00%	0.00%	0.00%
Maiden grass (Miscanthus sinensis) n=3	100.00%	0.00%	0.00%
Ornamental grasses n=6	100.00%	0.00%	0.00%
Pampus grass (Cortaderia selloana) n=3	100.00%	0.00%	0.00%
Sedge (Scirpus lacustris) n=3	66.67%	33.33%	0.00%
Squirreltail grass (Elymus elymoides) n=2	100.00%	0.00%	0.00%
Switch grass (Panicum virgatum) n=2	100.00%	0.00%	0.00%
Weeping love grass (Eragrostus curvula) n=1	100.00%	0.00%	0.00%

Groundcover	% Probability of Damage		
Plant Name & Number of Data Points	Never to Rarely Damaged %	Sometimes Damaged %	Frequently Severely Damaged %
Bugleweed, Carpet Bugle (Ajuga sp.) n=6	100.00%	0.00%	0.00%
Dead Nettle (Lamium sp.) n=6	83.33%	16.67%	0.00%
Ivy (Hedera sp.) n=1	100.00%	0.00%	0.00%
Japanese Spurge (Pachysandra terminalis) n=4	100.00%	0.00%	0.00%
Lily of the valley (Convallaria majalis) n=3	100.00%	0.00%	0.00%
Lilyturf (Liriope sp.) n=3	66.67%	33.33%	0.00%
Ornamental strawberry (Fragaria) n=1	100.00%	0.00%	0.00%
Pachysandra (Pachysandra terminalis) n=1	100.00%	0.00%	0.00%
Periwinkle (Vinca sp.) n=6	83.33%	16.67%	0.00%
Plumbago (Ceratostigma plumbaginoides) n=8	75.00%	25.00%	0.00%
Saxifrage (Saxifraga sp.) n=4	75.00%	25.00%	0.00%
Siberian bugloss (Bruneria macrophylla) n=2	100.00%	0.00%	0.00%
Sweet Woodruff (Galium odoratum) n=4	100.00%	0.00%	0.00%
Vinca (Vinca sp.) n=10	80.00%	20.00%	0.00%
Wintercreeper (Euonymus fortunei) n=3	0.00%	33.33%	66.67%

Perennial	% Probability of Damage		
Plant Name & Number of Data Points	Never to Rarely Damaged %	Sometimes Damaged %	Frequently Severely Damaged %
4 o'clock (Mirabilis jalapa) n=11	72.73%	27.27%	0.00%
African cornlily (Ixia) n=1	100.00%	0.00%	0.00%
Agapanthus (Agapanthus sp.) n=1	0.00%	100.00%	0.00%
Agave (Agave sp.) n=13	92.31%	7.69%	0.00%
Akebia (Akebia sp.) n=1	100.00%	0.00%	0.00%
Anemone (Anemone sp.) n=1	0.00%	100.00%	0.00%
Anise Hyssop (Agastache sp.) n=5	80.00%	20.00%	0.00%
Asparagus (Asparagus officinalis) n=3	66.67%	33.33%	0.00%
Aster (Aster sp.) n=14	92.86%	7.14%	0.00%
Astilbe (Astilbe sp.) n=7	71.43%	28.57%	0.00%
Babys breath (Gypsophila sp.) n=1	0.00%	100.00%	0.00%
Balloon Flower (Platycodon grandiflorus) n=2	0.00%	50.00%	50.00%
Basket of Gold (Aurinia saxatilis) n=1	100.00%	0.00%	0.00%
Bear Grass (Nolina microcarpa) n=10	90.00%	10.00%	0.00%
Beard tongue, Penstemon (Penstemon sp.) n=23	56.52%	21.74%	21.74%
Bee Balm (Monarda sp.) n=14	92.86%	7.14%	0.00%
Black Eyed Susan (Rudbeckia sp.) n=13	61.54%	38.46%	0.00%
Blackfoot daisy (Melanpodium leucanthum) n=7	85.71%	14.29%	0.00%
Blanket Flower (Gaillardia) n=20	65.00%	30.00%	5.00%
Bleeding heart (Dicentra sp.) n=12	83.33%	16.67%	0.00%
Blue Flax (Linum perrene) n=9	100.00%	0.00%	0.00%
Brittlebush (Encelia farinosa) n=5	100.00%	0.00%	0.00%
Buckwheat (Eriogonum sp.) n=4	100.00%	0.00%	0.00%
Butterfly weed (Asclepias tuberosa) n=8	75.00%	25.00%	0.00%
Cactus (Cactaceae sp.) n=2	100.00%	0.00%	0.00%
California Fuchsia (Zauschneria californica) n=4	100.00%	0.00%	0.00%
Candytuft (Iberis sp.) n=11	63.64%	36.36%	0.00%
Carnation, Pinks (Dianthus sp.) n=4	75.00%	25.00%	0.00%
Catmint (Nepeta sp.) n=19	89.47%	10.53%	0.00%
Catnip (Nepeta sp.) n=7	71.43%	28.57%	0.00%

Perennial continued	% Probability of Damage		
Plant Name & Number of Data Points	Never to Rarely Damaged %	Sometimes Damaged %	Frequently Severely Damaged %
Chives (<i>Allium schoenoprasum</i>) n=9	77.78%	22.22%	0.00%
Chocolate Flower (<i>Berlandiera lyrata</i>) n=2	100.00%	0.00%	0.00%
Cholla (<i>Opuntia</i> sp.) n=3	100.00%	0.00%	0.00%
Chrysanthemum (<i>Chrysanthemum</i> sp.) n=8	50.00%	37.50%	12.50%
Clematis (<i>Clematis</i> sp.) n=5	40.00%	20.00%	40.00%
Columbine (<i>Aquilegia</i> sp.) n=15	60.00%	26.67%	13.33%
Comfrey (<i>Symphytum officinale</i>) n=3	66.67%	33.33%	0.00%
Coneflower (<i>Echinacea</i>) n=16	75.00%	18.75%	6.25%
Coral Bells (<i>Heuchera</i> sp.) n=5	0.00%	60.00%	40.00%
Cornflower (<i>Centaurea montana</i>) n=5	80.00%	20.00%	0.00%
Corydalis (<i>Corydalis</i> sp.) n=2	100.00%	0.00%	0.00%
Crown Pink (<i>Lychnis coronaria</i>) n=3	100.00%	0.00%	0.00%
Currant, Gooseberry (<i>Ribes</i> sp.) n=9	77.78%	22.22%	0.00%
Cyclamen (<i>Cyclamen</i> sp.) n=1	0.00%	100.00%	0.00%
Daisies (<i>Asteraceae</i>) n=6	33.33%	50.00%	16.67%
Dalea (<i>Dalea</i> sp.) n=4	100.00%	0.00%	0.00%
Daylily (<i>Hemerocallis</i> sp.) n=16	62.50%	12.50%	25.00%
Delphinium (<i>Delphinium</i> sp.) n=4	25.00%	25.00%	50.00%
Desert Spoon (<i>Dasyliiron</i>) n=1	100.00%	0.00%	0.00%
Dusty Miller (<i>Senecio</i>) n=5	100.00%	0.00%	0.00%
English Ivy (<i>Hedera helix</i>) n=9	66.67%	22.22%	11.11%
Euphorbia (<i>Euphorbia</i> sp.) n=9	100.00%	0.00%	0.00%
Evening primrose (<i>Oenothera</i> sp.) n=8	62.50%	12.50%	25.00%
Fairy Duster (<i>Calliandra</i> sp.) n=3	100.00%	0.00%	0.00%
False Indigo (<i>Baptisia australis</i>) n=1	100.00%	0.00%	0.00%
False Spirea (<i>Sorbaria sorbifolia</i>) n=1	100.00%	0.00%	0.00%
Ferns (Many species) n=5	100.00%	0.00%	0.00%
Feverfew (<i>Chrysanthemum parthenium</i>) n=2	0.00%	100.00%	0.00%
Flax (<i>Linum</i> sp.) n=5	80.00%	0.00%	20.00%
Fleabane (<i>Erigeron</i> sp.) n=10	90.00%	10.00%	0.00%

Perennial continued	% Probability of Damage		
Plant Name & Number of Data Points	Never to Rarely Damaged %	Sometimes Damaged %	Frequently Severely Damaged %
Gayfeather (<i>Liatris</i> sp.) n=6	50.00%	50.00%	0.00%
Geranium (<i>Geranium</i> sp.) n=11	63.64%	9.09%	27.27%
Geranium (<i>Pelargonium</i> sp.) n=6	66.67%	33.33%	0.00%
Germander (<i>Teucrium</i> sp.) n=8	100.00%	0.00%	0.00%
Geum (<i>Geum</i> sp.) n=1	0.00%	100.00%	0.00%
Globe Thistle (<i>Echinops ritro</i>) n=5	100.00%	0.00%	0.00%
Gloriosa Daisy (<i>Rudbeckia hirta</i>) n=6	83.33%	16.67%	0.00%
Goldenrod (<i>Solidago</i> sp.) n=11	90.91%	9.09%	0.00%
Grape (<i>Vitis</i> sp.) n=7	28.57%	42.86%	28.57%
Hellebore (<i>Helleborus</i> sp.) n=1	100.00%	0.00%	0.00%
Hens & Chicks (<i>Echeveria elegans</i>) n=2	50.00%	50.00%	0.00%
Hens & Chicks (<i>Sempervivum</i> sp.) n=8	87.50%	12.50%	0.00%
Herbs (except basil) (Many species) n=15	86.67%	13.33%	0.00%
Honeysuckle (<i>Lonicera</i>) n=12	58.33%	25.00%	16.67%
Horehound (<i>Marrubium vulgare</i>) n=11	100.00%	0.00%	0.00%
Horseradish (<i>Armoracia rusticana</i>) n=3	100.00%	0.00%	0.00%
Hosta (<i>Hostas</i> sp.) n=7	28.57%	28.57%	42.86%
Hummingbird Mint (<i>Agastache</i> sp.) n=10	80.00%	20.00%	0.00%
Hydrangea (<i>Hydrangea</i> sp.) n=2	0.00%	100.00%	0.00%
Hyssop (<i>Hyssopus officinalis</i>) n=1	100.00%	0.00%	0.00%
Ice plant (<i>Mesembryanthemum</i> sp.) n=4	50.00%	50.00%	0.00%
Iris (<i>Iris</i> sp.) n=26	65.38%	26.92%	7.69%
Jack-in-the-pulpit (<i>Arisaema triphyllum</i>) n=1	100.00%	0.00%	0.00%
Jacob's Ladder (<i>Polemonium</i>) n=3	66.67%	33.33%	0.00%
Jerusalem Sage (<i>Phlomis</i> sp.) n=2	100.00%	0.00%	0.00%
Joe Pye Weed (<i>Eupatorium</i>) n=1	100.00%	0.00%	0.00%
Jupiter's beard (<i>Centranthus</i>) n=2	100.00%	0.00%	0.00%
Ladys' mantle (<i>Alchemilla</i> sp.) n=3	66.67%	33.33%	0.00%
Lamb's ear (<i>Stachys byzantina</i>) n=16	100.00%	0.00%	0.00%
Lavender (<i>Lavandula</i> sp.) n=28	100.00%	0.00%	0.00%

Perennial continued	% Probability of Damage		
Plant Name & Number of Data Points	Never to Rarely Damaged %	Sometimes Damaged %	Frequently Severely Damaged %
Lavender Cotton (Santolina sp.) n=10	100.00%	0.00%	0.00%
Leek(Allium ampeloprasum) n=1	100.00%	0.00%	0.00%
Lemon balm (Melissa officinalis) n=4	100.00%	0.00%	0.00%
Lenten rose (Helleborus sp.) n=3	100.00%	0.00%	0.00%
Lungwort (Pulmonaria sp.) n=3	100.00%	0.00%	0.00%
Lupine (Lupinus sp.) n=12	75.00%	25.00%	0.00%
Marjoram (Majorana) n=3	100.00%	0.00%	0.00%
Meadow rue (Thalictrum sp.) n=3	100.00%	0.00%	0.00%
Mexican Hat (Ratibida) n=13	84.62%	15.38%	0.00%
Milkweed, whorled (Asclepias sp.) n=15	86.67%	13.33%	0.00%
Mint (Mentha sp.) n=15	93.33%	6.67%	0.00%
Mullein (Verbascum sp.) n=8	87.50%	12.50%	0.00%
Obedient plant (Physostegia sp.) n=2	0.00%	100.00%	0.00%
Orange globe mallow (Sphaeralcea munroana) n=10	100.00%	0.00%	0.00%
Oregano (Origanum sp.) n=12	100.00%	0.00%	0.00%
Oriental Poppy (Papaver orientale) n=10	80.00%	20.00%	0.00%
Parsley (Petroselinum crispum) n=1	0.00%	100.00%	0.00%
Peony (Paeonia sp.) n=8	75.00%	12.50%	12.50%
Phlox, Moss pink (Phlox sp.) n=10	50.00%	30.00%	20.00%
Pincushin flower (Scabiosa caucasica) n=11	72.73%	27.27%	0.00%
Poppy (Papaver sp.) n=7	100.00%	0.00%	0.00%
Prairie zinnia(Zinnia sp.) n=4	75.00%	25.00%	0.00%
Prickly Pear (Opuntia sp.) n=9	88.89%	11.11%	0.00%
Primrose (Primula sp.) n=3	0.00%	100.00%	0.00%
Purple Loosestrife (Lythrum sp.) n=1	0.00%	100.00%	0.00%
Rain lily (Zephyranthes) n=2	100.00%	0.00%	0.00%
Red yucca (Hesperaloe) n=11	63.64%	18.18%	18.18%
Red-hot-poker (Kniphofia uvaria) n=18	83.33%	11.11%	5.56%
Rhubarb (Rheum rhabarbarum) n=5	80.00%	20.00%	0.00%

Perennial continued	% Probability of Damage		
Plant Name & Number of Data Points	Never to Rarely Damaged %	Sometimes Damaged %	Frequently Severely Damaged %
Rock cress (Arabis caucasica) n=2	100.00%	0.00%	0.00%
Rosemary (Rosmarinus officinalis) n=24	100.00%	0.00%	0.00%
Rue (Ruta sp.) n=3	100.00%	0.00%	0.00%
Sage (Salvia sp.) n=20	80.00%	15.00%	5.00%
Sand verbena (Abronia) n=4	100.00%	0.00%	0.00%
Savory (Satureja montana) n=1	0.00%	100.00%	0.00%
Sea holly (Eryngium agavifolium) n=3	66.67%	0.00%	33.33%
Sea thrift (Armeria sp.) n=6	83.33%	16.67%	0.00%
Sedge grasses (Carex) n=1	100.00%	0.00%	0.00%
Sedum (Sedum) n=10	80.00%	20.00%	0.00%
Shasta daisy (Leucanthemum x superbum) n=6	33.33%	66.67%	0.00%
Silver lace vine (Polygonum aubertii) n=1	100.00%	0.00%	0.00%
Sneezeweed (Helenium autumnale) n=1	0.00%	100.00%	0.00%
Snow-in-summer (Ceratium tomentosum) n=11	90.91%	9.09%	0.00%
Soapwort (Saponaria) n=2	50.00%	50.00%	0.00%
Society garlic (Tulbaghia fragrens) n=3	100.00%	0.00%	0.00%
Spanish broom (Spartium) n=1	100.00%	0.00%	0.00%
Spearmint (Mentha spicata) n=9	100.00%	0.00%	0.00%
Speedwell, Veronica (Veronica sp.) n=8	75.00%	25.00%	0.00%
Spiderwort (Tradescantia sp.) n=1	0.00%	100.00%	0.00%
Spurge (Euphorbia dulcis Chameleon) n=1	0.00%	100.00%	0.00%
Spurge (Euphorbia sp. Except Chameleon) n=4	100.00%	0.00%	0.00%
St. John's wort (Hypericum sp.) n=6	83.33%	16.67%	0.00%
Statice (Limonium latifolium) n=2	100.00%	0.00%	0.00%
Strawberry (Fragaria sp.) n=7	42.86%	0.00%	57.14%
Sweet Violet (Viola odorata) n=3	100.00%	0.00%	0.00%
Tansy, common (Tanacetum vulgare) n=6	100.00%	0.00%	0.00%
Tarragon (Artemisia dracunculua) n=3	100.00%	0.00%	0.00%
Texas sage (Leucophyllum sp.) n=6	100.00%	0.00%	0.00%
Thyme (Thymus sp.) n=15	100.00%	0.00%	0.00%

Perennial continued	% Probability of Damage		
Plant Name & Number of Data Points	Never to Rarely Damaged %	Sometimes Damaged %	Frequently Severely Damaged %
Tickseed (<i>Coreopsis</i> sp.) n=22	50.00%	40.91%	9.09%
Trumpet vine (<i>Campsis radicans</i>) n=5	80.00%	20.00%	0.00%
Tussock bellflower (<i>Campanula carpatica</i>) n=5	80.00%	20.00%	0.00%
Virginia creeper (<i>Parthenocissus</i> sp.) n=15	86.67%	6.67%	6.67%
Wine-cup (<i>Callirhoe involucrata</i>) n=6	50.00%	16.67%	33.33%
Winter jasmine (<i>Jasminum nudiflorum</i>) n=1	0.00%	100.00%	0.00%
Wisteria (<i>Wisteria</i> sp.) n=7	71.43%	14.29%	14.29%
Wood fern (<i>Fern</i>) n=1	100.00%	0.00%	0.00%
Yarrow (<i>Achillea</i> sp.) n=23	78.26%	17.39%	4.35%
Yucca (<i>Yucca</i>) n=12	66.67%	33.33%	0.00%

Shrub	% Probability of Damage		
Plant Name & Number of Data Points	Never to Rarely Damaged %	Sometimes Damaged %	Frequently Severely Damaged %
3-leaf sumac (<i>Rhus trilobata</i>) n=14	78.57%	14.29%	7.14%
Apache Plume (<i>Fallugia</i>) n=16	93.75%	6.25%	0.00%
Autumn sage (<i>Salvia greggii</i>) n=14	100.00%	0.00%	0.00%
Barberry (<i>Berberis</i> sp.) n=14	92.86%	0.00%	7.14%
Blue Mist Spirea (<i>Caryopteris clandonensis</i>) n=12	100.00%	0.00%	0.00%
Boxwood (<i>Buxus</i> sp.) n=11	90.91%	9.09%	0.00%
Broom (<i>Cytisus</i> sp.) n=5	80.00%	20.00%	0.00%
Buckthorn (<i>Rhammus</i> sp.) n=4	50.00%	25.00%	25.00%
Burning Bush (<i>Euonymus alatus</i>) n=1	100.00%	0.00%	0.00%
Butterfly Bush (<i>Buddleia</i> sp.) n=17	94.12%	5.88%	0.00%
Choke cherry (<i>Prunus virginiana</i>) n=6	50.00%	50.00%	0.00%
Chuparosa (<i>Justicia californica</i>) n=3	100.00%	0.00%	0.00%
Cinquefoil (<i>Potentilla</i> sp.) n=14	100.00%	0.00%	0.00%
Coffee berry (CA buckthorn) (<i>Frangula californica</i>) n=3	100.00%	0.00%	0.00%
Cotoneaster (<i>Cotoneaster</i> sp.) n=13	84.62%	15.38%	0.00%
Crape myrtle (<i>Lagerstroemia indica</i>) n=5	60.00%	40.00%	0.00%
Cresote Bush tubers (<i>Larrea tridentata</i>) n=1	100.00%	0.00%	0.00%

Shrub continued	% Probability of Damage		
Plant Name & Number of Data Points	Never to Rarely Damaged %	Sometimes Damaged %	Frequently Severely Damaged %
Daphne (<i>Daphne</i> sp.) n=5	80.00%	20.00%	0.00%
Dogwood (<i>Cornus</i> sp.) n=5	60.00%	40.00%	0.00%
Elderberry (<i>Sambucus</i> sp.) n=5	80.00%	20.00%	0.00%
Euonymus (<i>Euonymus</i> sp.) n=6	16.67%	66.67%	16.67%
Firethorn (<i>Pyracantha</i> sp.) n=13	76.92%	23.08%	0.00%
Forsythia (<i>Forsythia</i>) n=10	40.00%	50.00%	10.00%
Glossy Abelia (<i>Abelia</i> sp.) n=6	83.33%	16.67%	0.00%
Gold dust (<i>Aucuba japonica</i>) n=2	50.00%	50.00%	0.00%
Heath (<i>Erica</i> sp.) n=3	100.00%	0.00%	0.00%
Heather (<i>Calliuna</i> sp.) n=2	100.00%	0.00%	0.00%
Heavenly Bamboo (<i>Nandina</i> sp.) n=13	76.92%	23.08%	0.00%
Hibiscus (<i>Hibiscus</i> spp.) n=1	100.00%	0.00%	0.00%
Holly (<i>Ilex</i> sp.) n=8	87.50%	12.50%	0.00%
Indian Hawthorn (<i>Raphiolepis indica</i>) n=1	0.00%	100.00%	0.00%
Japanese Euonymus (<i>Euonymus japonica</i>) n=4	0.00%	100.00%	0.00%
Japanese Rose (<i>Kerria japonica</i>) n=2	100.00%	0.00%	0.00%
Juniper (<i>Juniperus</i> sp.) n=26	92.31%	3.85%	3.85%
Lilac (<i>Syringa</i> sp.) n=16	68.75%	18.75%	12.50%
Littleleaf Cordia (<i>Cordia parvifolia</i>) n=2	100.00%	0.00%	0.00%
Manzanita (<i>Archostaphylos</i> sp.) n=17	94.12%	0.00%	5.88%
Mock orange (<i>Philadelphus</i> sp.) n=2	50.00%	50.00%	0.00%
Mouintain mahogany (<i>Cercocarpus</i> sp.) n=12	75.00%	25.00%	0.00%
Mugo pine (<i>Pinus mugo</i>) n=3	100.00%	0.00%	0.00%
Ninebark (<i>Physocarpus monogynus</i>) n=1	0.00%	100.00%	0.00%
Oleander (<i>Nerium oleander</i>) n=1	100.00%	0.00%	0.00%
Oregon Grape (<i>Mahonia</i> sp.) n=21	95.24%	4.76%	0.00%
Photinia (<i>Photinia</i>) n=4	75.00%	25.00%	0.00%
Privet (<i>Ligustrum</i> sp.) n=2	0.00%	100.00%	0.00%
Purple leaf plum (<i>Prunus</i> sp.) n=4	75.00%	25.00%	0.00%
Rabbit brush (<i>Chrysothamnus</i> sp.) n=12	91.67%	8.33%	0.00%

Shrub continued	% Probability of Damage		
Plant Name & Number of Data Points	Never to Rarely Damaged %	Sometimes Damaged %	Frequently Severely Damaged %
Red chokeberry (<i>Aronia arbutifolia</i>) n=1	0.00%	100.00%	0.00%
Rhododendron (<i>Rhododendron</i> sp.) n=3	66.67%	0.00%	33.33%
Rose of Sharon (<i>Hibiscus syriacus</i>) n=5	60.00%	40.00%	0.00%
Roses (<i>Rosa</i> sp.) n=13	7.69%	30.77%	61.54%
Rugosa rose (<i>Rosa rugosa</i>) n=1	0.00%	100.00%	0.00%
Russian olive (<i>Elaeagnus angustifolia</i>) n=5	80.00%	20.00%	0.00%
Russian sage (<i>Perovskia</i>) n=22	100.00%	0.00%	0.00%
Saltbush (<i>Atriplex</i>) n=3	100.00%	0.00%	0.00%
Serviceberry (<i>Amelancier</i> sp.) n=5	40.00%	20.00%	40.00%
Shrub live oak (<i>Quercus turbinella</i>) n=7	100.00%	0.00%	0.00%
Silktassel (<i>Garrya wrightii</i>) n=5	100.00%	0.00%	0.00%
Silverberry (<i>Elaeagnus pungens</i>) n=5	100.00%	0.00%	0.00%
Smoke tree (<i>Cotinus coggygia</i>) n=9	66.67%	33.33%	0.00%
Snowberry (<i>Symphoricarpos albus</i>) n=2	50.00%	50.00%	0.00%
Spiraea (<i>Spiraea</i> sp.) n=11	72.73%	27.27%	0.00%
Sumac (<i>Rhus</i> sp.) n=13	76.92%	23.08%	0.00%
Sweet acacia (<i>Vachellia farnesiana</i>) n=1	100.00%	0.00%	0.00%
Turpentine bush (<i>Ericarmeria laricifolia</i>) n=7	100.00%	0.00%	0.00%
Viburnum (<i>Viburnum</i> sp.) n=7	71.43%	28.57%	0.00%
Weigela (<i>Weigela</i> sp.) n=2	50.00%	50.00%	0.00%
Wormwood (<i>Artemesia</i> sp.) n=8	100.00%	0.00%	0.00%
Yew (<i>Taxus</i> sp.) n=3	66.67%	0.00%	33.33%

Tree	% Probability of Damage		
Plant Name & Number of Data Points	Never to Rarely Damaged %	Sometimes Damaged %	Frequently Severely Damaged %
American Holly (<i>Ilex opaca</i>) n=5	100.00%	0.00%	0.00%
Apple, Crabapple (<i>Malus</i> sp.) n=9	22.22%	22.22%	55.56%
Arborvitae (<i>Thuja occidentalis</i>) n=2	50.00%	0.00%	50.00%
Ash (<i>Fraxinus</i> sp.) n=10	90.00%	10.00%	0.00%

Tree continued	% Probability of Damage		
Plant Name & Number of Data Points	Never to Rarely Damaged %	Sometimes Damaged %	Frequently Severely Damaged %
Austrian pine (<i>Pinus nigra</i>)	60.00%	20.00%	20.00%
AZ cypress (<i>Cupressus arizonica</i>)	81.82%	9.09%	9.09%
Birch (<i>Betula</i> sp.)	80.00%	20.00%	0.00%
Cedar (<i>Cedrus</i> sp.)	88.89%	11.11%	0.00%
Chaste Tree (<i>Vitex</i>)	100.00%	0.00%	0.00%
Cherry (<i>Prunus</i> sp.)	25.00%	37.50%	37.50%
Citrus (Various)	100.00%	0.00%	0.00%
Colorado Blue Spruce (<i>Picea pungens</i>)	50.00%	50.00%	0.00%
Cottonwood (<i>Populus</i> sp.)	66.67%	33.33%	0.00%
Cypress (<i>Cupressus</i> sp.)	83.33%	16.67%	0.00%
Douglas Fir (<i>Pseudotsuga menziesii</i>)	90.00%	10.00%	0.00%
Dwarf Alberta spruce (<i>Picea glauca</i> 'conica')	100.00%	0.00%	0.00%
Fig (<i>Fig</i>)	75.00%	25.00%	0.00%
Fir (<i>Abies</i> sp.)	85.71%	14.29%	0.00%
Flowering Quince (<i>Chaenomeles</i> sp.)	85.71%	14.29%	0.00%
Fruit (apples, pears, peaches) (Various)	27.27%	54.55%	18.18%
Goldenrain tree (<i>Koelreuteria paniculata</i>)	50.00%	50.00%	0.00%
Hackberry (<i>Celtis</i> sp.)	100.00%	0.00%	0.00%
Hawthorn (<i>Crataegus</i> sp.)	88.89%	11.11%	0.00%
Honey Locust (<i>Gleditsia triacanthos</i>)	83.33%	16.67%	0.00%
Honey Mesquite beans/pods (<i>Prosopis glandulosa</i>)	66.67%	33.33%	0.00%
Italian cypress (<i>Cupressus sempervirens</i>)	25.00%	0.00%	75.00%
Jjoba (<i>Simmondsia chinensis</i>)	100.00%	0.00%	0.00%
Katsura tree (<i>Cercidipylum japonicum</i>)	100.00%	0.00%	0.00%
Leyland cypress (<i>Cupressus x leylandii</i>)	57.14%	28.57%	14.29%
Locust trees (<i>Robinia</i> sp.)	85.71%	14.29%	0.00%
Magnolia (<i>Magnolia</i> sp.)	80.00%	20.00%	0.00%
Maidenhair tree (<i>Ginkgo biloba</i>)	100.00%	0.00%	0.00%
Maple trees (<i>Acer</i> sp.)	73.33%	26.67%	0.00%
Mimosa (<i>Albizia</i> sp.) n=8	87.50%	12.50%	0.00%

Tree continued	% Probability of Damage		
Plant Name & Number of Data Points	Never to Rarely Damaged %	Sometimes Damaged %	Frequently Severely Damaged %
Oak, including acorns (<i>Quercus</i> sp.) n=16	75.00%	25.00%	0.00%
Palo Verde (<i>Parkinsonia aculeata</i>) n=2	100.00%	0.00%	0.00%
Pear (<i>Pyrus</i> sp.) n=1	0.00%	100.00%	0.00%
Pine (<i>Pinus</i> sp.) n=24	87.50%	8.33%	4.17%
Plums (<i>Prunus</i> sp.) n=7	28.57%	57.14%	14.29%
Purple leaf sand cherry (<i>Prunus x cistena</i>) n=4	75.00%	25.00%	0.00%
Redbud (<i>Cercis</i> sp.) n=9	77.78%	22.22%	0.00%
Screwbean mesquite (<i>Prosopis pubescens</i>) n=1	100.00%	0.00%	0.00%
Spruce (<i>Picea</i> sp.) n=16	75.00%	18.75%	6.25%
Sweetgum (<i>Liquidambar styraciflua</i>) n=2	50.00%	50.00%	0.00%
Texas mountain laurel (<i>Sophora secuniflora</i>) n=4	100.00%	0.00%	0.00%
Tulip tree (<i>Liriodendron tulipifera</i>) n=2	50.00%	50.00%	0.00%
Walnut (<i>Juglans nigra</i>) n=2	100.00%	0.00%	0.00%
Willow (<i>Salix</i> sp.) n=3	33.33%	66.67%	0.00%

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