

**A****FRO****B**eyondist**C**ivilization



**BEYONDIST**  
**Companion**  
**PLANTING**

Researched  
By  
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## What is Companion Planting?

Companion planting is simply planting two or more mutually beneficial plants next to each other. Companion plants are fruits, vegetables, herbs, shrubs, or flowers that provide a benefit to their neighbor, whether that's through nutrients, providing shade, or protection from pests or disease. This technique is an integral part of permacultivation.

A permaculture garden is a permanent *bio-intensive garden* that, once established, can protect and produce an abundance of diverse, healthy foods in a relatively small area from one season to the next for as long as it is properly managed. Diversification is key in any permaculture garden; planting diverse species in the same space is called intercropping. When intercropping it is important to know the characteristics of the different plants that share the same space to be sure that they will grow well together. Sets of intercropped plants that grow well together and benefit from each other are called companion plants.

One of the most well-known companion planting practices is known as The Three Sisters - made up of corn, beans, and squash. The corn provides a structure for the beans to climb on. The beans provide nitrogen to the soil that the other plants need. And the spreading squash plant creates a living mulch by blocking sunlight, reducing soil temperatures and minimizing moisture loss and weed growth.

## Being in Harmony with Nature means letting Nature Harmonize

Healthy ecosystems don't grow like we plant. Typically, plants don't naturally grow in straight lines and they are not isolated from other species. A happy garden or farm has variety, and that variety accomplishes a lot for both the land and the grower. In addition to supporting soil health and biodiversity, plants support one another. Companion planting simply recognizes those relationships and takes advantage of harmonious relationships between plants.

## Where to Start

Determine your growing space and take into account any major environmental challenges you may face: common pests in the region, soil composition, sun exposure, etc. It's when we're planning our crops that we may forget to lean on companion planting or forget to consider which plants are not companions at all. Plants that do not grow well together are called antagonists.

When you're planning your garden, make sure to consider each plant's physical characteristics, nutrient needs, growth rates and habits before intercropping them.

#### **4 Tips When Starting Out**

**Use appropriate spacing** – Be sure to use correct spacing when intercropping plants. Plants should be no closer together than the smallest spacing requirement of the vegetables being planted.

**Take advantage of plants' differences** – One of the largest benefits of intercropping is that plants that have different physical characteristics can be worked into the same bed like puzzle pieces.

- Place plants with low leaf cover and compact or shallow root systems next to plants with larger leaf cover and deeper root systems. Mix slow-growing plants with fast-growing plants so they don't compete. Grow plants that require lots of nutrients (heavy feeders) with those that require little (light feeders).
- Plant aromatic plants that deter pests to protect non-aromatic plants.
- Plant flowering plants with pollen and nectar that attract beneficial insects to feed on pests.
- Grow plants that attract and trap pests near your other higher-value crops
- Plant crops that grow in different ways (e.g. climbers and stalks or bushes) so that one can be supported by the other.

**Work with plants from different families** – In general, plants from different vegetable families are susceptible to different pests and diseases than those of other families. By diversifying vegetable families being grown in the garden, the potential for devastating insect loss is even further reduced.

**Keep transplanting and seeding issues in mind** – If a bed is direct-seeded it is difficult to intercrop with transplants before the seedlings sprout without disturbing seeds that are in the process of germinating. Always transplant before direct seeding OR direct seed first and then wait until the seedlings have broken the soil surface before transplanting. Your decision will rely on the growth cycles of the particular plants being intercropped.

## VEGETABLE COMPANION PLANTING CHART

<b>PLANT</b>	<b>COMPANIONS</b>	<b>INCOMPATIBLE</b>
Apple		Black Walnut, Perennial Rye Grass
Asparagus	Basil, Parsley, Tomato	
Beans	Most Vegetables & Herbs	Chives, Fennel, Garlic, Gladiolus, Leeks, Onion, Shallot
Beans (Bush)	Beets, Cabbage, Carrots, Cauliflower, Celery, Celery, Chard, Corn, Cucumbers, Eggplant, Lettuce, Parsnip, Pea, Potato, Irish Potato, Radish, Rosemary, Strawberry, Savory, Sunflower, Tansy, Marigold	Basil, Fennel, Kohlrabi, Leeks, Onion
Beans (Pole)	Carrots, Cauliflower, Chard, Corn Cucumber, Eggplant, Lettuce, Marigold, Pea, Potato, Radish, Rosemary, Savory, Strawberry, Tansy	Basil, Beets, Cabbage, Fennel, Kohlrabi, Onion, Radish, Sunflower
Beets	Bush Beans, Cabbage family, Lettuce, Lima Bean, Onion, Radish, Sage	Larkspur, Mustard, Pole Bean
Broccoli	Beets, Celery, Onions, Potatoes	Strawberries, Tomatoes
Cabbage Family	Bush Beans, Beets, Carrot, Celery, Cucumber, Dill, Lettuce, Mint, Nasturtium, Onions, Rosemary, Sage, Spinach, Thyme, All Strong Herbs, Marigold, Nasturtium	Dill, Pole Bean, Strawberry, Tomato
Carrots	Beans, Brussels sprouts, Cabbage, Chives, Lettuce,	Celery, Dill, Parsnip

	Leek, Onion, Peas, Radish, Rosemary, Sage, Tomato	
Cauliflower	Celery, Onions, Potatoes	Strawberries, Tomatoes
Celery	Almost everything	Carrot, Parsley, Parsnip
Chamomile	Cabbage, Cucumber, Melon, Most Herbs, Onion	
Chard	Cabbage, Lettuce, Onions	Pole Beans
Chives	Carrots, Grape, Rose, Tomato	Beans, Cucumber, Peas
Corn	All Beans, Beets, Cabbage, Cantaloupe, Cucumber, Melons, Parsley, Peas, Early Potatoes, Pumpkin, Squash	Tomato
Cucumbers	Bush Beans, Pole Beans, Cabbage family, Corn, Dill, Eggplant, Lettuce, Marigold, Nasturtium, Onions, Peas, Radish, Tomato, Savory, Sunflower, No Strong Herbs	Potato
Dill	Cabbage, Lettuce, Onion	Carrots, Cucumber, Tomato
Eggplant	Bush Beans, Marigold, Pole Beans, Peas, Peppers, Potato, Spinach, Thyme	Fennel
Fennel		Beans, Peppers
Garlic	Beets, Cabbage, Rose, Tomatoes	Beans, Peas
Lettuce	Everything, but especially Carrots, Garlic, Onion and Radish	None
Leeks	Carrots, Celery, Cucumber, Onions	Bush Beans, Pole Beans
Lovage	Beans (Pole & Bush)	

Melon	Chamomile, Corn, Morning Glory, Nasturtium, Radish, Summer Savory	Potato
Mint	Cabbage, Pea, Tomato	Cucumber
Nasturtium	Celery, Cucumber, Potatoes, Radish, Squash	
Onion	Beets, Cabbage family, Carrots, Celery, Cucumber, Lettuce, Parsnip, Pepper, Spinach, Squash, Strawberries, Tomato, Turnip, Savory	Asparagus, Beans, Peas, Sage
Oregano	Pumpkins	Cucumber
Parsley	Tomato , Asparagus	None
Peas	Bush Beans, Pole Beans, Carrots, Celery, Chicory, Corn Cucumber, Eggplant, Parsley, Early Potato, Radish, Spinach, Strawberry, Sweet Potato, Turnips	Onion, Late Potato
Pepper	Basil, Okra	Fennel
Potato	Bush bean, Cabbage family, Carrot, Corn, Horseradish, Marigold, Onion, Parsnip, Peas	Cucumber, Kohlrabi, Parsnip, Pumpkin, Rutabaga, Squash family, Sunflower, Turnip, Fennel
Potato (Irish)	Beans, Broccoli, Cabbage, Cauliflower, Corn, Eggplant, Horseradish, Marigolds, Nasturtiums, Thyme	Cucumber, Melon, Pumpkin, Squash, Sunflower, Turnip, Tomato
Pumpkins	Corn, Marigolds, Oregano	Irish Potato
Radish	Beet, Bush Beans, Pole Beans, Carrots, Cucumber, Lettuce, Melons, Nasturtium,	All Pole Plants, Hyssop

	Parsnip, Peas, Spinach, Squash family	
Spinach	Celeriac, Celery, Corn, Eggplant, Cauliflower	
Squash	Corn, Onion, Radish	
Strawberry	Bush Beans, Lettuce, Nasturtium, Onion, Radish, Spinach	Cabbage, Potato
Tomato	Asparagus, Basil, Bean, Cabbage family, Carrots, Celery, Chive, Cucumber, Garlic Head lettuce, Marigold, Mint, Nasturtium, Onion, Parsley, Pepper, Marigold	Pole beans, Corn Dill, Fennel, Potato
Turnip	English Pea	Irish Potato

## **HERB COMPANION CHART**

<b>HERB</b>	<b>GOOD COMPANIONS</b>	<b>BAD COMPANIONS</b>	<b>PESTS REPELLED</b>
Basil	Marigold, Pepper, Tomato	Cucumber, Rue	Flies, Mosquitoes
Borage	Beans, Tomatoes, Strawberries, Squash	Cucumber	Tomato Worm
Caraway	Loosens soil	Dill	
Catnip	Eggplant		Flea Beetle, Ants
Chamomile	Cabbage, Onion		
Coriander			Aphids

Chervil	Radish		
Chives	Carrots		
Dead Nettle	Potatoes	Potato Bug	
Dill	Cabbage	Caraway Carrots	
Fennel		Most plants dislike	
Feverfew	Roses		Attracts aphids
Flax	Carrots, Potatoes		Potato Bud
Garlic	Roses, Raspberries		Japanese Beetles, Aphids
Horseradish	Potatoes		Potatoes
Henbit			Insect Repellent
Hyssop	Cabbage, Grapes	Radishes	Cabbage Moth
Lavender	Southernwood, Rosemary, Wormwood		Moths
Marigolds	Plant everywhere in Garden		Mexican Bean Beetles, Nematode
Mint	Cabbage, Tomatoes		Cabbage Moth, Aphids, Beetles
Nasturtium	Radishes, Cabbage, Cucurbits, fruit trees		Aphids, Squash Bugs, Striped Pumpkin Beetles
Pennyroyal	Roses		Flies, Mosquitoes, Fleas
Petunia	Beans		
Pot Marigold	Tomatoes		Tomato Worm, Asparagus, Beetles
Pyrethrums			Dried flower, repels insects

Rosemary	Cabbage, Beans, Carrots, Sage		Cabbage Moth, Bean Bug, Carrot Fly
Rue	Roses, Raspberries	Sweet Basil	Japanese Beetles
Sage	Rosemary, Cabbage, Carrots, Strawberry, Tomato	Cucumber, Onion	Cabbage Moth, Carrot Fly, Flea Beetle, Slugs
Southernwood	Cabbages		Cabbage Moth
Sow Thistle	Tomatoes, Onions, Corn Plant sparsely		
Summer Savory	Beans		Bean Beetles
Tansy	Fruit Trees, Roses, Raspberries		Flying Insects, Japanese Beetles, Striped Cucumber Beetles, Squash Bugs, Flies
Thyme	Cabbage		Plant as a border to repel Animals
Yarrow	Plant near aromatic herbs, enhance essential oils		

# Plant pH Preference List

NAME	pH	NAME	pH	NAME	pH	NAME	pH	NAME	pH		
<b>FRUIT</b>											
APPLE	5.0 - 6.5	<b>VEGETABLES &amp; HERBS</b>									
APRICOT	6.0 - 7.0	SAGE	5.5 - 6.5	<b>HOUSE &amp; GREENHOUSE PLANTS</b>						<b>FLOWERS, TREES &amp; SHRUBS</b>	
AVOCADO	6.0 - 7.5	SHALLOT	5.5 - 7.0	GERANIUM	6.0 - 8.0	ASPHODOLINE	6.0 - 8.0	<b>FLOWERS, TREES &amp; SHRUBS</b>			
BANANA	5.0 - 7.0	SORGHUM	5.5 - 7.5	GLOXINIA	5.5 - 6.5	ASTER	5.5 - 7.5	LAVENDER	6.5 - 7.5		
BLACKBERRY	5.0 - 6.0	SOYBEAN	5.5 - 6.5	GRAPE IVY	5.0 - 6.5	AUBRITA	6.0 - 7.5	LIATRIS	5.5 - 7.5		
BLUEBERRY	4.0 - 6.0	SPEARMINT	5.5 - 7.5	GRAPE HYACINTH	6.0 - 7.5	AZALEA	4.5 - 6.0	LIGUSTRUM	5.0 - 7.5		
CANTALOUPE	6.5 - 7.5	SWINACH	6.0 - 7.5	GRAPEVILLA	5.5 - 6.5	BALLOON FLOWER	6.0 - 6.5	LILAC	6.0 - 7.5		
CHERRY	6.0 - 7.5	SWIIDE	5.0 - 7.0	GYNIIRA	5.5 - 6.5	BAYBERRY	4.0 - 6.0	LILY OF THE VALLEY	4.5 - 6.0		
CRANBERRY	5.5 - 6.5	THYME	5.5 - 7.0	HEDERA (IVY)	6.0 - 8.0	BERGENIA	6.0 - 7.5	LITHOSPERMUM	5.0 - 6.5		
CURRENT: Black	6.0 - 8.0	TOMATO	5.5 - 7.5	HELIOTROPIUM	5.0 - 6.0	BLEEDING HEART	6.0 - 7.5	LOBELIA	6.5 - 7.5		
Red	5.5 - 7.0	TURNIP	5.5 - 7.0	HENS AND CHICKENS	6.0 - 7.0	BLUEBELL	6.0 - 7.6	LUPINUS	5.5 - 7.0		
White	6.0 - 8.0	WATER CRESS	6.0 - 8.0	HERRINGBONE PLANT	6.0 - 6.0	BROOM	5.0 - 6.0	MAGNOLIA	5.0 - 6.0		
DAMSON	6.0 - 7.5	<b>HOUSE &amp; GREENHOUSE PLANTS</b>									
GOOSEBERRY	5.0 - 6.5	ABUTILON	5.5 - 6.5	HIBISCUS PLANT	6.0 - 8.0	BUDDLEIA	6.0 - 7.0	MAHONIA	6.0 - 7.0		
GRAPEVINE	6.0 - 7.0	ACORUS	5.0 - 6.5	IMPATIENS	5.5 - 6.5	BUPHTHALUM	6.0 - 7.0	MARGOLD	5.5 - 7.0		
GRAPEFRUIT	6.0 - 7.5	AECHMEA	5.0 - 5.5	IVY TREE	6.0 - 7.0	BUTTERFLY BUSH	4.0 - 6.0	MOLINIA	4.0 - 5.0		
HAZELNUT	6.0 - 7.0	AFRICAN VIOLET	6.0 - 7.0	JACARANDA	6.0 - 7.5	CALENDULA	5.5 - 7.0	MORAEA	5.5 - 6.5		
HOP	6.0 - 7.5	AGLAONEMA	5.0 - 6.0	JAPANESE SEDGE	6.0 - 8.0	CAMASSIA	6.0 - 8.0	MORNING GLORY	6.0 - 7.5		
HUCKLEBERRY	4.0 - 6.0	AMARYLLIS	5.5 - 6.5	JASMINUM	5.5 - 7.0	CANDYTUFT	6.0 - 8.0	MOSS, SPHAGNUM	3.5 - 5.0		
LEMON	6.0 - 7.0	AMARYLLIS	5.5 - 6.5	JERUSALEM CHERRY	5.5 - 6.5	CANNA	6.0 - 8.0	MYOSOTIS	6.0 - 7.0		
LYCHEE	6.0 - 7.0	ANTHURIUM	5.0 - 6.0	HOYA	7.0 - 7.5	CANTERBURY BELLS	7.0 - 7.5	NARCISSUS	6.0 - 8.5		
MANGO	5.0 - 6.0	APHELANDRA	5.0 - 6.0	JESSAMONE	5.0 - 6.0	CARDINAL FLOWER	4.0 - 6.0	NASTURTIUM	5.5 - 7.5		
MELON	5.5 - 6.5	ARAUCHARIA	5.0 - 6.0	KALANCHOE	6.0 - 7.5	CARNATION	6.0 - 7.5	NICOTIANA	5.5 - 6.5		
MULBERRY	6.0 - 7.5	ASPARAGUS FERN	6.0 - 8.0	KANGAROO THORN	6.0 - 8.0	CATALPA	6.0 - 8.0	PACHYSANDRA	5.0 - 8.0		
NECTARINE	6.0 - 7.5	ASPIDISTRA	4.0 - 5.5	KANGAROO VINE	5.0 - 6.5	CELOSIA	6.0 - 7.0	PAEONIA	6.0 - 7.5		
PEACH	6.0 - 7.5	AZALEA	4.5 - 6.0	LANTANA	5.5 - 7.0	CENTAUREA	5.0 - 6.5	PANSY	5.5 - 7.0		
PEAR	6.0 - 7.5	BABY'S BREATH	6.0 - 7.5	LAURUS (BAY TREE)	5.0 - 6.0	CERASTIUM	6.0 - 7.0	PASSION FLOWER	6.0 - 8.0		
PINEAPPLE	5.0 - 6.0	BABY'S TEARS	5.0 - 6.0	LEMON PLANT	6.0 - 7.5	CHRYSANTHEMUM	6.0 - 7.5	PASQUE FLOWER	5.0 - 6.0		
PLUM	6.0 - 7.5	BEGONIA	5.5 - 7.0	MIMOSA	5.0 - 7.0	CISSUS	6.0 - 7.5	PAULOWNIA	6.0 - 8.0		
POMGREANATE	5.5 - 6.5	BIRD OF PARADISE	6.0 - 6.5	MIND YOUR OWN BUSINESS	5.0 - 5.5	CISTUS	6.0 - 7.5	PENSTEMON	5.5 - 7.0		
QUINCE	6.0 - 7.5	BISHOP'S CAP	5.0 - 6.0	MONSTERA	5.0 - 6.0	CLARKIA	6.0 - 6.5	PERIWINKLE	6.0 - 7.5		
RASPBERRY	5.0 - 7.5	BLACK-EYED SUSAN	5.5 - 7.5	MYRTLE	6.0 - 8.0	CLIANTHUS	6.0 - 7.5	PETUNIA	6.0 - 7.5		
RHUBARB	5.5 - 7.0	BLOOD LEAF	5.5 - 6.5	NEVER NEVER PLANT	5.0 - 6.0	CLEMATIS	5.5 - 7.0	PINKS	6.0 - 7.5		
STRAWBERRY	5.0 - 7.5	BOTTLEBRUSH	6.0 - 7.5	NICODEMIA (INDOOR OAK)	6.0 - 8.0	COLCHICUM	5.5 - 6.5	POLYGONUM	6.0 - 7.5		
WATERMELON	5.5 - 6.5	BOUGAINVILLEA	5.5 - 7.5	NORFOLK ISLAND PINE	5.0 - 6.0	COLUMBINE	6.0 - 7.0	POLYANTHUS	6.0 - 7.5		
<b>VEGETABLES &amp; HERBS</b>											
ARTICHOKE	6.5 - 7.5	BOXWOOD	6.0 - 7.5	OLEANDER	6.0 - 7.5	CONVOLVULUS	6.0 - 8.0	POPPY	6.0 - 7.5		
ASPARAGUS	6.0 - 8.0	BROMELIADS	5.0 - 7.5	OPULISMENUS	5.0 - 6.0	COREOPSIS	5.0 - 6.0	PORTULACA	5.5 - 7.5		
BASIL	5.5 - 6.5	BUTTERFLY FLOWER	6.0 - 7.5	ORCHID	4.5 - 5.5	CORONILLA	6.5 - 7.5	PRIMROSE	5.5 - 6.5		
BEAN	6.0 - 7.5	CACTI	4.5 - 6.0	OXALIS	6.0 - 8.0	CORYDALIS	6.0 - 8.0	PRIMULA	6.0 - 7.5		
(Runner, Broad, French)	6.0 - 7.5	CALCALOLARIA	6.0 - 7.0	PALMS	6.0 - 7.5	COSMOS	5.0 - 6.0	PRIVET	5.0 - 7.0		
BETROOT	6.0 - 7.5	CALADIUM	5.0 - 6.0	PANDANUS	5.0 - 6.0	COTONEASTER	6.0 - 8.0	PRUNELLA	6.0 - 7.5		
BROCCOLI	6.0 - 7.0	CALLA LILY	6.0 - 7.0	PEACOCK PLANT	5.0 - 6.0	CRAB APPLE	6.0 - 7.5	PRUNUS	6.5 - 7.5		
BRUSSELS SPROUTS	6.0 - 7.5	CAMELIA	4.5 - 5.5	PELLIONIA	5.0 - 6.0	CROCUS	6.0 - 8.0	PYRETHRUM	6.0 - 7.5		
CABBAGE	6.0 - 7.5	CAMPANULA	5.5 - 6.5	PEPEROMIA	5.0 - 6.0	CYNOGLOSSUM	6.0 - 7.5	RED HOT POKER	6.0 - 7.5		
CALABRESSE	6.5 - 7.5	CAPSIUM	5.0 - 6.5	PHILODENDRON	5.0 - 6.0	DAFFODIL	6.0 - 6.5	RHODODENDREN	4.5 - 6.0		
CARROT	5.5 - 7.0	CARDINAL FLOWER	5.0 - 7.5	PILEA	6.0 - 8.0	DAHLIA	6.0 - 7.5	ROSES			
CAULIFLOWER	5.5 - 7.5	CASTOR OIL PLANT	5.5 - 6.5	PLUMBAGO	5.0 - 6.0	DAY LILY	6.0 - 8.0	HYBRID TEA	5.5 - 7.0		
CELERY	6.0 - 7.0	CANTURY PLANT	5.0 - 6.5	PODACARPUS	5.0 - 6.5	DELPHINIUM	6.0 - 7.5	CLIMBING	6.0 - 7.0		
CHICORY	5.0 - 6.5	CHINESE EVERGREEN	5.0 - 6.0	POINTSETTIA	6.0 - 7.5	DEUTZIA	6.0 - 7.5	RAMBLING	5.5 - 7.0		
CHINESE CABBAGE	6.0 - 7.5	CHINESE PRIMROSE	6.0 - 7.5	POLYSCIAS	6.0 - 7.5	DIANTHUS	6.0 - 7.5	SALVIA	6.0 - 7.5		
CHIVES	6.0 - 7.0	CHRISTMAS CACTUS	5.0 - 6.5	POTHOS	5.0 - 6.0	DOGWOOD	5.0 - 7.0	SCABIOSA	5.0 - 7.5		
CORN - SWEET	5.5 - 7.0	CINERARIA	5.5 - 7.0	PRAYER PLANT	5.0 - 6.0	EDELWEISS	6.5 - 7.5	SEDUM	6.0 - 7.5		
CRESS	6.0 - 7.0	CLERODENDRUM	5.0 - 6.0	PRUNIA	5.5 - 6.5	ELAEAGNUS	5.0 - 7.5	SNAPDRAGON	5.5 - 7.0		
COURGETTES	5.5 - 7.0	CLIVIA	5.5 - 6.5	SANSYERIA	4.5 - 7.0	ENKIANTHUS	5.0 - 6.0	SNOWDROP	6.0 - 8.0		
CUCUMBER	5.5 - 7.5	COCKSCOMB	6.0 - 7.0	SAXIFRAGA	6.0 - 8.0	ERICA	4.5 - 6.0	SOAPWORT	6.0 - 7.5		
FENNEL	5.0 - 6.0	COFFEE PLANT	5.0 - 6.0	SCINDAPSUS	5.0 - 6.0	EUPHORBIA	6.0 - 7.0	SPEEDWELL	5.5 - 6.5		
GARLIC	5.5 - 7.5	COLEUS	6.0 - 7.0	SHRIMP PLANT	6.0 - 7.0	EVERLASTINGS	5.0 - 6.0	SPIRAEA	6.0 - 7.5		
GINGER	6.0 - 8.0	COLUMNIA	4.5 - 5.5	SPANISH BAYONET	6.0 - 7.5	FIRETHORN	6.0 - 8.0	SPRUCE	4.0 - 5.0		
HORSERADISH	6.0 - 7.0	CORAL BERRY	5.5 - 7.5	SPIDER PLANT	6.0 - 7.5	FORGET-ME-NOTS	6.0 - 7.0	STOCK	6.0 - 7.5		
KALE	6.0 - 7.5	CRASSULA	5.0 - 6.0	SUCCULENTS	5.0 - 6.5	FORSYTHIA	6.0 - 8.0	STONECROP	6.5 - 7.5		
KOHLRABI	6.0 - 7.5	CREeping FIG	5.0 - 6.0	SYNOGONIUM	5.0 - 6.0	FOXGLOVE	6.0 - 7.5	SUMACK	5.0 - 6.5		
LEEK	6.0 - 8.0	CROTON	5.0 - 6.0	TOLMIEA	5.0 - 6.0	FRITILLARIA	6.0 - 7.5	SUNFLOWER	5.0 - 7.0		
LENTIL	5.5 - 7.0	CROWN OF THORNS	6.0 - 7.5	TRADESCANTIA	5.0 - 6.0	FUCHSIA	5.5 - 7.5	SWEET PEA	6.0 - 7.5		
LETTUCE	6.0 - 7.0	CUPPEA	6.0 - 7.5	UMBRELLA TREE	5.0 - 7.5	GAILLARDIA	6.0 - 7.5	SWEET WILLIAM	6.0 - 7.5		
MARJORAM	6.0 - 8.0	CYCLAMEN	6.0 - 7.0	VENUS FLYTRAP	4.0 - 5.0	GAZANIA	5.5 - 7.0	TAMARIX	6.5 - 8.0		
MARROW	6.0 - 7.5	CYPERUS	5.0 - 7.5	WEeping FIG	5.0 - 6.0	GENTIANA	5.0 - 7.5	TRILLIUM	5.0 - 6.5		
MILLET	6.0 - 6.5	DIFFENBACHIA	5.0 - 6.0	YUCCA	6.0 - 7.5	GELUM	6.0 - 7.5	TULIP	6.0 - 7.0		
MINT	7.0 - 8.0	DIPLODENIA	6.0 - 7.5	ZEBRINA	5.0 - 6.0	GLADIOILI	6.0 - 7.0	VIBERNUM	5.0 - 7.5		
MUSHROOM	6.5 - 7.5	DIZGOTHECA	6.0 - 7.5	<b>FLOWERS, TREES &amp; SHRUBS</b>							
MUSTARD	6.0 - 7.5	DRACAEINA	5.0 - 6.0	ABELIA	6.0 - 8.0	GLOBULARIA	5.5 - 7.0	VIOLA	5.5 - 6.5		
OLIVE	5.5 - 6.5	EASTER LILY	6.0 - 7.0	ACACIA	6.0 - 8.0	GOETIA	6.0 - 7.5	VIRGINIA CREEPER	5.0 - 7.5		
ONION	6.0 - 7.0	ELEPHANT'S EAR	5.0 - 6.0	ACANTHUS	6.0 - 7.0	GOLDEN ROD	5.0 - 7.0	WALLFLOWER	5.5 - 7.5		
PAPRIKA	7.0 - 8.5	EPISCIA	6.0 - 7.0	ACONITUM	5.0 - 6.0	GYPSOPHILIA	6.0 - 7.5	WATER LILY	5.5 - 6.5		
PARSLEY	5.0 - 7.0	EUNYMOUS	6.0 - 8.0	ADONIS	6.0 - 8.0	HAWTHORN	6.0 - 7.0	WEIGELIA	6.0 - 7.5		
PARSNIP	5.5 - 7.5	FERNS:		AGERATUM	6.0 - 7.5	HEATHER	4.0 - 6.0	WISTARIA	6.0 - 8.0		
PEA	6.0 - 7.5	BIRD'S NEST	5.0 - 5.5	ALLANTHUS	6.0 - 7.5	HELLEBORUS	6.0 - 7.5	ZINNIA	5.5 - 7.5		
PEANUT	5.0 - 6.5	BOSTON	5.5 - 6.5	ALJUGA	6.0 - 7.5	HOLLY	5.0 - 6.5	<b>TURF &amp; ORNAMENTAL GRASSES</b>			
PECAN	4.0 - 6.0	BUTTON	6.0 - 8.0	ALTHERA	4.0 - 6.0	HOLLYHOCK	6.0 - 7.5	BAHAI	6.5 - 7.5		
PEPPER	5.5 - 7.0	CHRISTMAS	6.0 - 7.5	ALYSSUM	6.0 - 7.5	HONEYBUCKLE	6.0 - 7.5	BENT	5.5 - 6.5		
PEPPERMINT	6.0 - 7.5	CLOAK	6.0 - 7.5	AMARANTHUS	6.0 - 6.5	HYACINTH	6.5 - 7.5	BERMUDA	6.0 - 7.0		
PISTACHIO	5.0 - 6.0	FEATHER	5.5 - 6.5	ANCHUSA	6.0 - 7.5	HYDRANGEA (Blue)	4.0 - 5.0	CANADA BLUE	4.5 - 6.4		
POTATO	4.5 - 6.0	HART'S TONGUE	7.0 - 8.0	ANDROSACE	5.0 - 6.0	HYDRANGEA (Pink)	6.0 - 7.0	CLOVER	6.0 - 7.0		
POTATO - SWEET	5.5 - 6.0	HOLLY	4.5 - 6.0	ANEMONE	5.0 - 6.0	HYPERICUM (White)	6.5 - 8.0	KENTUCKY BLUE	6.0 - 7.5		
PUMPKIN	5.5 - 7.5	MAIDENHAIR	6.0 - 8.0	ANTHYLLIS	5.0 - 6.0	IRIS	5.5 - 7.0	MEADOW	6.0 - 7.5		
RADISH	6.0 - 7.0	RABBITS FOOT	6.0 - 7.5	ARBITUS	4.0 - 6.0	IVY	6.0 - 7.5	PAMPAS	6.0 - 8.0		
RICE	5.0 - 6.5	SPLEENWORT	6.0 - 7.5	ARENARIA	6.0 - 8.0	JUNIPER	5.0 - 6.5	RED TOP	6.0 - 6.5		
ROSEMARY	5.0 - 6.0	FIG	5.0 - 6.0	ARISTEA	6.0 - 7.5	KALMIA	4.5 - 5.0	RYE	6.0 - 7.0		
		FITTONIA	5.5 - 6.5	ARMERIA	6.0 - 7.5	KERRIA	6.0 - 7.0	ST. AUGUSTINE	6.5 - 7.5		
		FREESIA	6.0 - 7.5	ARNICA	5.0 - 6.5	LABURNUM	6.0 - 7.0	TALL FESCUE	6.0 - 7.0		
		GARDENIA	5.0 - 6.0					VELVET BENT	5.0 - 6.0		
								ZOYSIA	6.0 - 7.0		