IRON INDUCED CHLOROSIS:

The young leaves are pale green to yellow with darker green veins. This commonly occurs in limestone soils, particularly those that have been over watered. The free iron is leached and the residual iron in the soil is unavailable to the plant due to the highly alkaline soil. The short term remedy is to apply dissolved "Iron Chelate" onto the root zone around the plant and/or as a foliar spray. Depending upon the severity, a follow-up treatment may be required. A pH test will reveal how alkaline the soil is and in extreme situations applications of agricultural sulphur at 3 monthly intervals may help to lower the pH of the soil. The application of as much organic matter as possible can assist in correcting the problem.

POSSUMS:

Not an easy pest to control! They feed at night and may be attracted to the new growth of roses particularly climbers that are in the path of their run. Traps may be available from some local Councils but possums are very territorial and are likely to return when released even from considerable distances away. Sprays such as "Deter" are expensive and may be effective in the short term.

PARROTS:

The Rosellas can be a real problem in the spring and autumn periods in specific areas when they chew the new red shoots. Various devices to scare birds seem only to have a short term value as does spraying with "Deter". The last resort and the most effective is to build a structure over the rose garden and cover with bird mesh.

MOSAIC VIRUSES:

Roses are more likely to become infected with viruses during the process of budding scion material onto symptomless rootstocks. The virus disease becomes obvious through the expression of pale green to yellow patterns, streaks and blotches on some leaves. The absence of symptoms on other • parts of the plant does not mean freedom from infection. Cutting-off the portion of the plant exhibiting the symptoms will not cure the plant. If you propagate the symptomless parts of the plant by budding or by stem cutting you will reproduce the virus infection in the new plants. It would be possible for skilled operators using specific treatments and tissue culture techniques to culture virus-free cells into new virus-free plants of the cultivar but it is expensive and so far the demand from rose growers is low. Most people ignore the problem because they know that infected plants still produce flowers. There is research to indicate that virus infected plants can produce smaller blooms, and in smaller numbers, and less • frequently.

TIPS ON ROSE CULTURE:

- Roses need several hours of direct sun per day.
- If replanting a rose, remove at least half a barrow of soil and as many of the old roots as possible and refill the hole with new soil mixed with cow manure, mushroom compost (or similar) together with "Seamungus" at least 6 weeks prior to planting the new rose bush.
- Prune roses during their most dormant period (usually mid-June to mid-August in Southern Australia). Remove all leaves to reduce the fungal problems later by allowing good coverage of winter sprays such as "White Oil" and "Mancozeb" over all canes and surrounding soil.
- Apply "Seamungus" after pruning and before mulching to assist in the development of a good root system to nourish the plant.
- Supply a thick layer of mulch around rose plants after pruning and before the new growth is too advanced as new growth is very tender and easily damaged.
- Apply "Sudden Impact for Roses" during early September and again in early December and again in late February, making sure to water the fertilizer in well if there is no rain at that time. No further applications of fertilizer for the year will be necessary.
- As a guide, roses generally should receive between 15 to 20 litres weekly. During prolonged hot weather try to give a deep soaking weekly on loamy or clay-based soils and the same quantity in 2 or 3 shorter periods on sandy soils.
- Regularly deadhead spent blooms by trimming down to the second 5-leaflet leaf which will assist to provide repeat flowering throughout the growing season.
- Apply preventative fungicide sprays to rose plants before the predicted periods of humid conditions to prevent germination of fungal spores.
- Do not spray any herbicides including "Glyphosate" near rose plants or when conditions are windy as plants can be damaged.
- Do not remove new "water shoots" coming from the bud union as these new canes are the future life of the plant. It may pay to stake the new growth to prevent breakage from wind. After flowering, cut-off the spent flowers only without trimming the shoot back. This will protect the new cane from dieback allowing time for it to mature before pruning time.
- Check for new sucker growth that appears below the bud union. This is growth of the rootstock and will eventually take over the plant. To remove this growth, dig down following the growth and remove by cutting the root above the growth with sharp pruning snips. Digging in a rose bed with a fork can damage roots and may cause suckers.
- Spray plants with "Envy" during periods of stress to prevent high water loss and desiccation of the foliage.

The Rose Society of South Australia Inc.



Advice on Pests & Diseases of Roses

> Email: info@sarose.org.au Web: www.sarose.org.au

The Problem & its Signs	The Non-Chemical Remedy	The Chemical Treatment
APHIDES: Masses of nymphs on buds, stems and leaves. The sticky residue on leaves attracts ants. Damage to flower buds.	Squirt bugs off with a water jet or brush them off with a small paint brush or with your fingers. Natural predators such as the Ladybird, Lace Wing and Wasps will help control the Aphides during the warmer period.	When using any Chemical Spray, follow the instructions on the Label and observe all safety recommendations. "Pest Oil" or "Eco Oil" mixed with water at the label rate should smother the aphids.
CATERPILLARS: Edges of leaves chewed. Flowers may have holes in the petals and the buds may be nibbled.	Small green grubs are found in curled-up new leaves with webs. The grubs can be squashed with fingers but will suspend on a thread if disturbed.	"Dipel" or "Success" are very safe to use. These are made from naturally occurring bacteria which kills the caterpillars after ingestion.
SPIDER MITE: Mites thrive in very hot dry conditions and infest the underside of leaves. Infested leaves look pale in colour and desiccated. Fine webbing on the underside of leaves may be seen.	Humidify the dry conditions by spraying water under the leaves and wet the mulch and surrounding soil. Repeat each morning for 3-4 days which may interrupt their breeding cycle.	Spray under the leaves with "Pest Oil" or "Eco Oil" to smother the mites. In severe mite infestations, the use of a miticide spray may be needed. Choose one of the less toxic Sulphur containing sprays and be aware that mites can become immune to repeated use of the organic formulated products.
EARWIGS & GARDEN WEEVIL: Chewed edges of new growth including leaves and flower buds. Insects are active at night and hide in litter during the day.	Reduce numbers by trapping. Place a bottle containing a little "Linseed Oil" among your plants overnight. Empty the contents each morning and repeat again each night until the numbers of insects are under control.	If trapping fails to reduce numbers quickly then spray "Confidor" over the infested rose plants when the plants are in active growth.
SCALE INSECTS: Small infestations may be found under the bark of older branches. Large infestations over a long period of time may weaken the rose bush. A swarming ant population is a reliable sign of scale infestation.	Small infestations can be controlled by daubing the contaminated branches with 70-100% "Methylated Spirits" using a small paint brush. This effectively kills the insects but sometimes the treatment needs to be repeated to cover new outbreaks.	More extensive infestations could be sprayed with "Pest Oil", "Soapy water" or "Eco Oil". This relies on smothering the scale insects when they are exposed. The young delicate insects can be quite mobile on the branches but the adults are usually well protected and move very little.
THRIPS: These insects often arrive with the hot dry northerly winds. These small black insects feed on delicate petals causing brown edges, distortion of petals preventing the blooms from opening normally.	Keep a watch on the lighter coloured blooms for the arrival of insects. Harvest the affected blooms and seal inside a plastic bag and dispose. Don't throw the infested blooms on the ground as this aids pupation of the next generation of insects.	As the insects invade the inside of developing rose blooms there is little value in spraying with contact insecticides. The systemic insecticide "Confidor" is sometimes recommended but thrips have the ability to quickly acquire resistance to chemicals.
BLACK SPOT: The fungus attacks leaves causing dark blotches and yellowing. The affected leaves drop prematurely and in severe cases the rose bushes are defoliated.	When high humidity exists, do not wet the rose foliage unless it can dry within 4 hours. When replanting the rose garden, select cultivars with improved resistance to black spot disease.	When dewy mornings are expected or rain forecast for 3 or more days, apply a preventative fungicidal spray such as "Mancozeb", "Mancozeb Plus", "Triforine" or "Pest Oil". Do not use "Triforine" more than 2-3 times each year.
MILDEW: The white powdery fungus affects young leaves & buds during cooler humid weather.	Plant rose cultivars with an improved resistance to mildew. Spray with Full Cream Milk diluted with water in the ratio of 1 part Milk to 10 parts water.	Preventative sprays include "Wettable Sulphur" products and "Pest Oil".
RUST: Numerous small rusty pustules on the underside of leaves occurring during humid weather.	Plant rose cultivars with an improved resistance to rust disease.	Difficult to control. Spray with "Pest Oil", "Eco Oil" or "Wettable Sulphur" products on the underside of all leaves.