

Weeding

Since ginseng was introduced to BC in 1982, weeding has, in some cases, been the major cost factor. This was not totally preventable but the major reasons for weedy gardens were:

- contaminated straw
- poor land preparation techniques
- wrong site selection

There has also been help in the area of pesticide registration for weed control. Along with good land preparation and clean straw, the registration of Touchdown, Roundup, and Venture L has helped control weeds and reduce labour costs. The British Columbia industry is also hoping to get 2-4-D registered soon for better broadleaf control. As of this date (October 2002) hand weeding for broad leaf weeds in the growing season is the only legal method. See data sheets in the appendix pages 151-164 for information sheets on these chemicals. See also page 87 for a listing of all registered pesticides. The label is always the final authority.

Straw Maintenance

It is imperative that the straw mulch be maintained and any lumps be removed or bare spots covered. It has been shown quite consistently that plants cannot come through straw lumps or thick areas. It has also been shown that in bare spots plant populations reduce quite substantially over winter, even in a mild winter.

Often straw will deteriorate faster than normal and new straw should be added to give at least a 5 cm (2") cover. Some growers intentionally place less straw on the first year as seeds are harder than roots, then put more straw on in the fall of the first year of growth.

Garden Walking

This is a term that has been coined by the ginseng industry and literally means what it says. Someone needs to walk the gardens regularly, at least once a week to check for many things. Moisture levels, insect damage, diseases starting, weed control needed and many other things. This person should have some way of marking problem areas or even individual plants for further studies. A numbering system in your garden, for what area, row and even what post in a row should be used to relocate problems.

Subsoiling for Water Control

As a garden walker assesses the state of the garden each time through, one of the items of concern is standing water. This is almost always worst in the rows where equipment travels, due to compaction by heavy machinery, so the water will not filter down into the soil properly.

At some point in a garden's history a subsoiling tool may have to be used to loosen the soil. This is discussed more fully in the Site Preparation section.

If this does not solve the problem of standing water, and it may not in a level garden, some other mechanism to remove this water must be available. Trenching to the outside or pumping are both possibilities, and which one will have to be assessed on a garden by garden basis.

Seed Head Removal

The removal of seed heads when they are small, to prevent flowering and seed formation, will increase the root mass, reportedly up to 30% with 3rd and 4th year removal. This decision should be made before a garden starts to grow as flower heads appear very early. This decision would be based on projected seed supply, for green and future stratified seed. You may though not be interested in seed production for sale and opt for more root mass. Keep enough seed production for your own use, plus a bit more if you are going to remove the flowers.

The labour to do this is comparable to picking seed and processing it in the fall. This also spreads out the workload over the season.

If the flowers are advanced and have not been sprayed or not sprayed in the allowable days to harvest period, there may be a market for dried ginseng flowers for making tea or extracts. Literature suggests they are very high in ginsenosides compared to other plant parts.

Mechanical Maintenance

Even in a small garden there will be ongoing maintenance of sprinkler heads, cable adjustments or a multitude of other things. A garden walker must be able to see these things then pass on the information or be able to fix the problem themselves.

A non-working sprinkler head for example, causing an area to be missed, could cause severe wilting and damage to plant tops in a hot dry period.

Irrigation, nutritional requirements, spraying and sprayer calibration, etc. are all covered in other sections of this guide. General garden maintenance basically covers all things done from the time seed is

sown and the shade structure completed to removal of shade cover and harvesting of roots commences. It is a long period and being there with good observation skills is so important to the general well being of a garden. Ginseng is not a very forgiving plant in many respects.



A typical digger used in the ginseng industry. It is 6 ft wide and digs up to 12" deep, dropping the roots on the ground for sorting and pickup.



Root awaiting pickup, often done by contracted labour crews.