Celery

Apium graveolens L
Celery in its wild form is a biennial plant, but it is produced as an annual crop. The suitable planting time for celery should be during the cool winter months. The seed should be planted very shallow because it takes long to germinate and emerge if sown deep. The recommended depth is 3 mm.

**Fertilisation**

Celery is a heavy feeder and to lower the costs of fertilisers, organic matter should be worked into the soil. The fertiliser application should be based on soil nutrient analysis results. During the production season, leaf and soil analyses can be conducted to determine the nutrient levels. Nutrient sprays can be used occasionally to supply magnesium, boron or calcium because serious disorders may develop if these elements are deficient.

Fertilisation is normally in split applications, with one half applied before planting and the remainder 4 weeks before harvest. The latter treatment encourages rapid head development in comparison to those without a side-dressing. The preplant application may be also be either broadcast or band placed.

**Irrigation**

A sprinkler irrigation system can be utilised for celery production, but because of a higher risk of foliage diseases, drip irrigation is preferred over sprinklers. The irrigation system that should be used, should apply a consistent and regular supply of water.

Frequent irrigations are preferred and these are determined by soil type. Lighter soils need more frequent water applications, but smaller volumes per application. Irregular or infrequent water applications may intensify black heart, which is caused by a calcium deficiency.

**Weed control**

The integrated methods of weed control include crop rotation, eradication of weeds before they produce seeds, irrigation before planting to allow weed germination, followed by cultivation to reduce the seed bank in the soil. The manipulation of plant spacing between the rows and the beds can also be implemented with the aim of suppressing the weeds.

Weeds are also controlled carefully with shallow cultivation but care should be taken not to damage the shallow root system. Registered chemicals can also be used integrated with cultural practices.

**Pest and disease control**

Celery must be closely monitored throughout the growing season for infestation by various pests. Common pests affecting celery include aphids, leaf miners, cutworms and nematodes. The integration of several methods can help control a variety of pests. These methods include crop rotation, sanitation in the field and the removal of host plants such as the weeds.

Diseases such as early blight, late blight, leaf spot and heart rot are very common and can be controlled by the application of registered chemicals as soon as possible after the identification of the symptoms. Other control measures include applying copper oxychloride as a protective spray or other registered chemicals, utilising seeds free from the disease and blanching the crop during cloudy and humid weather conditions.

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