

## BEDDIS SOILS

(Orthic Dystric Brunisol)

Location - Occurs below 100 meters in elevation on well drained sandy fluvial terraces and old post glacial beaches.

Texture - Loamy sand to sandy loam.

Available Water Storage Capacity - 9 cm / meter.

Irrigation Application Rate - 1.4 cm / hr. grass crop.

- 0.75 cm / hr. cultivated crop.

- Annual Application - 46.0 cm.

Drainage - Rapid to moderately well.

Compaction - Lower horizons are slightly compact but subsoiling is not usually required. Sloping areas are susceptible to erosion.

Fertilizer - Strong to medium acid, requires lime. Naturally deficient in nitrogen.

Suitability - Most crops.

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## CHEMAINUS SOIL

(Orthic Dystric Brunisol)

Location - Found on floodplains and low terraces along streams and rivers, such as the Nanaimo, Chemainus, Cowichan and Koksilah.

Texture - Silt loam, loam.

Available Water Storage Capacity - 16.0 cm / meter.

Irrigation Application Rate - 0.9 cm / hr. grass crop.

- 0.5 cm / hr. cultivated crop.

- Annual Application - 31.0 cm.

Drainage - Moderately well drained, water tables at 1 to 2 meter depth. Flooding may occur, dependant upon elevation.

Compaction - Occasionally a concern on silt loam surfaces. Water erosion possible if flooding occurs.

Fertilizer - Medium acid. Soils are variable in nitrogen content. Lime may be required for some crops.

Suitability - Well suited to a wide range of agricultural crops - a prime agricultural soil.

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COMIAKEN SOIL

(Cumulic Regosal)

Location - Occurs level to very gently sloping floodplains along the Nanaimo, Chemainus, Cowichan and Koksilah rivers.

Texture - Loamy sand, sandy loam, sand.

Available Water Storage Capacity - 11 cm / meter.

Irrigation Application Rate - 1.6 cm / hr. grass crop.

- 0.9 cm / hr. cultivated crop.

- Annual Application - 46.0 cm.

Drainage - Well to rapidly drained. Has an apparent water table at about 2 meters for most of the year.

Erosion - Subject to channeling by seasonal frequent flooding.

Fertilizer - Medium acid. Requires lime for various crops. Deficient in nitrogen.

Suitability - With dyking, leveling and irrigation, these soils can support a wide range of crops. Urban and related uses are not recommended because of the flood hazard.

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## COWICHAN SOIL

(Humic Luvic Gleysol)

Location - Occurs below elevations of about 100 meters, in level to depressional areas on undulating marine sediments.

Texture - Silt loam, silty clay loam, silty clay.

Available Water Storage Capacity - 22 cm / meter.

Irrigation Application Rate - 0.75 cm / hr. grass crop.  
- 0.40 cm / hr. cultivated crop.

- Annual Application - 32.0 cm.

Drainage - Poorly drained and maintains a constantly perched water table to within 1.5 meters from the surface. Drainage is required to increase range of crops and productivity.

Drain spacing should be 12 meters spacing at .9 meters in depth.

Fertilizer - Medium acid. Fair to good fertility and has good organic matter levels, requires lime.

Suitability - Excess moisture during the Spring will cause trafficability problems and planting delays. Winter ponding often kills or injures perennial crops. Historically suitable for hay and pasture. Urban and related uses severely constrained by high water table.

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## CROFTON SOIL

(Orthic Humic Gleysol)

Location - Found in depressional areas on recent floodplains and deltas of the Nanaimo, Chemainus, Cowichan and Koksilah rivers. Associated with Chemainus soils.

Texture - Silt loam, loam.

Available Water Storage Capacity - 30.6 cm / meter.

Irrigation Application Rate - 0.90 cm / hr. grass crop  
- 0.50 cm / hr. cultivated crop  
- Annual Application - 17.0 cm.

Drainage - Poorly drained - drainage required.

Drain spacing should be 15 meters spacing at 1.1 meters in depth. Filter required where sandy material present at drain depth.

Fertilizer - Medium acid - Requires lime for most crops. Naturally deficient in nitrogen and phosphorous.

Suitability - Forage and Fodder crops. Potential exists for a moderate range of crops with drainage and irrigation. Unsuitable for urban and related uses due to high water table and frequent flooding.

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## FAIRBRIDGE SOIL

(Gleyed Eluviated Dystric Brunisol)

Location - Occurs below 100 meters in elevation.

Texture - Silt loam to silty clay loam.

Available Water Storage Capacity - 24 cm / meter.

Irrigation Application Rate - 0.7 cm / hr. grass crop.  
- 0.5 cm / hr. cultivated crop.  
- Annual Application - 41.0 cm.

Drainage - Imperfectly to moderately well drained - Perched water table,  
- drainage required for perennial crops sensitive to saturated soil condition.

Subsurface drains - 14 meter spacing at 1 meter depth in depressions and 18 meter spacing in all other areas.

Compaction - Cultivate when moist and not when soil is saturated.  
Subsoiling may be beneficial.

Erosion - Structure degradation and surface crusting can result when the soil is exposed to heavy rain and/or cultivated when wet.

As slope steepness and slope length increase, surface soil erosion potential will increase. Winter cover crops are highly recommended.

Fertilizer - Lime is required. Soils naturally deficient in nitrogen.

Suitability - Highly suitable for forage and vegetables with irrigation and fertilization. A perched water table during the winter months may adversely effect some perennial crops.



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FLEWETT SOILS

(Orthic Dystric Brunisol)

Location - Found on level to very gently sloping river terraces and fluvial fans.

Texture - Fine sandy loam, silt loam, loam.

Available Water Storage Capacity - 12.0 cm / meter.

Irrigation Application Rate - 1.00 cm / hr. grass crop  
- 0.60 cm / hr. cultivated crop  
- Annual Application - 45 cm.

Drainage - Well drained.

Fertilizer - Naturally deficient in nitrogen. Strongly acid - requires lime.

Suitability - Suitable for a wide range of crops with the availability of irrigation water. No limitations for urban and related uses.

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## HILLBANK SOILS

(Orthic Dystric Brunisol)

Location - Occurs below elevations of about 100 meters on undulating silty marine landscapes; associated with Fairbridge soils.

Texture - Silt loam, loam.

Available Water Storage Capacity - 23.5 cm / meter.

Irrigation Application Rate - 0.90 cm / hr. grass crop.

- 0.50 cm / hr. cultivated crop.

- Annual Application - 42.0 cm.

Drainage - Moderately well.

Erosion - Structure degradation and surface crusting can result when the soil is exposed to heavy rain and/or cultivated when wet.

As slope steepness and slope length increase, surface soil erosion potential will increase. Winter cover crops are highly recommended.

Fertilizer - Medium acid - lime required. Deficient in nitrogen.

Suitability - Considered suitable for a wide range of crops with irrigation. Moderately suited for urban and related uses due to low bearing strength, slow perviousness and erodibility.

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METCHOSIN SOIL

(Typic Humisol)

Location - Occurs in very poorly drained depressional areas. The water table is at or near the surface for most of the year.

Texture - Humic Organic.

Available Water Storage Capacity - 15 cm / meter.

Irrigation Application Rate - 1.25 cm / hr. grass crop.

- 1.25 cm / hr. cultivated crop.

- Annual Application - 26.0 cm.

Drainage - Very poor - ditching and/or subsurface tile is required for optimum water control. High water table during the winter is required to prevent oxidation.

Drain spacing should be 12 meters at 1.2 meter minimum depth.

Fertilizer - Naturally fertile soils. May require additions of N, P & K for optimum crop growth. Very strongly acid.

Suitability - With adequate water control and maintenance, a variety of crops such as vegetables, forage and blueberries can be grown.

Urban and related uses are not recommended.

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## MILL BAY SOIL

(Duric Dystric Brunisol)

Location - Found below 100 meters in elevation on gently undulating marine landscapes.

Texture - Silt loam over gravelly sandy loam.

Available Water Storage Capacity - 16.9 cm / meter.

Irrigation Application Rate - 0.9 cm / hr. grass crop.

- 0.50 cm / hr. cultivated crop.

- Annual Application - 42.0 cm.

Drainage - Moderately well to imperfectly drained. Some reasonably saturated subsoils at depth. A root restricting layer will adversely affect deeply rooted crops.

Drain spacing should be 15 meters at .9 meter depth in depressional area and 18 meters at .9 meters for all other crops.

Erosion - Structure degradation and surface crusting can result when the soil is exposed to heavy rain and/or cultivated when wet.

As slope steepness and slope length increase, surface soil erosion potential will increase. Winter cover crops are highly recommended.

Fertilizer - Will require lime. Supplemental N P K fertilizer is required for various crops.

Suitability - Variety of crops is possible with supplemental irrigation and fertilization. High to moderate bearing strength, septic tank drainage impeded by cemented subsoils.

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QUALICUM SOILS

(Orthic Dystric Brunisol)

Location - Developed on deep coarse-textured fluvial, fluvio glacial and marine deposits and are usually associated with major streams in the area.

Texture - Very gravelly loamy sand.

Available Water Storage Capacity - - 5 cm / meter.

Irrigation Application Rate - 1.6 cm / hr. grass crop.

- 0.90 cm / hr. cultivated crop.

- Annual Application - 50.0 cm.

Drainage - Rapidly drained. No supplemental drainage required.

Fertilizer - Medium acid - may require lime for various perennial crops. Deficient in nitrogen and sulphur. High gravel content and sandy textures, may present fertility limitations.

Suitability - With irrigation and supplemental fertilizer, soils are suitable for perennials, crops such as tree fruits, raspberries and grapes. Suitable for urban and related uses.

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