PULVERISED HORTICULTURAL BARK

Bark Products (Bristol) Ltd.

History

Pulverised Bark has been widely used for the last 15 years in the USA, Canada, Finland and Sweden as a mulch and soil conditioner and to combat erosion of the soil by wind and also as a growing media for a wide variety of plants. In 1967 in this country in response to requests from certain growers the Forestry Commissions undertook trials to assess the usefulness of pine bark.

By 1972 a number of small outlets had been established, these being mainly in the field of Orchid growing and it was then that **Bark Products** Bristol was formed to market mixed conifer bark. The company operates in co-operation with the Imperial Group at St. Anne's Board Mills at Bristol and has received the full technical advice of the Forestry Commission in processing the large bark throw-off from this Mill and its subsidiary **Western Softwoods.** This throw-off is in the region of 12,000 tons per year and is composed of Scots Pine. Larch. Spruce, Douglas fir and comes mainly from the Welsh forests.

The Processing of Bristol Bark

The logs for pulping are de-barked in a large water friction drum and the shredded bark then passed on a moving belt to the pulveriser, the pulverised bark then being taken to the curing yards where it is stacked in 100 ton heaps.

Careful processing is necessary because two accusations have been levelled at bark in the Horticultural field. 1. The risk of introducing honey fugus with bark. 2. Toxicity. In the case of honey fungus any rhizomorphs which may be present are likely to be destroyed by the pulverising operation.

It is known that fragmented rhizomorphs are incapable of survival for more than a few weeks and are most unlikely to cause reinfection (J. R. Aaron, Forestry Commission (1972) Puberised Pine Bark. J. Roy. Hort. Socy.).

The driving out of the toxic elements is accomplished by natural thermophyllic bacterial activity as a result of the great heat generated in the stack, the following tables giving the results obtained.

Physical Properties of Bark

1. Long life. Bark will last for up to 5 years in the soil, providing valuable humus and up to 3 years as a mulch at 5.08 cm.
2. High Moisture Retention. Due to corky texture, Bark has a very good moisture retention and yet allows free percolation of rain and fertilisers.
3. Suppresses Weeds. Due again to corky texture, Bark effectively resists penetration of wind blown weed seed and also prevents wind erosion of the soil.
4. Good Aeration Qualities. Due to the resilience and non-coherence of the particles it is virtually impossible to over-water Bark. Also it does not compact, i.e. 'fall in the pot'.
5. A Natural Pest Repellant. Due to its texture and the initial presence of a small amount of monoterpenes not injurious to plants, slugs do not like it. (Report by the John Innes Institute at Chelsea, 1973).
6. Contains a small amount of Plant Nutrients. See University of Reading Analysis under :

Pulverised Bark—Analysis for Bark Products Bristol Ltd. January 1974.

Dry Matter	48.21%
Nitrogen	0.309%
Nitrate Nitrogen	15.5 ppm
PH	4.70
Conductivity	6.50
Available Potassium	180 ppm
Available Phosphorus	88 ppm
Available Magnesium	240 ppm

Products and uses

Three grades of Bark are produced. Chunky, Peanut and Fine. Chunky is at present in limited supply and its use is confined mainly to Orchid Growers. Peanut and Fine are both equally suitable for Soil Conditioning and Mulching, have a pleasing appearance and are good Weed Suppressors. When using as a Mulch or Soil Conditioner the use of a small amount of Nitrogenous Fertiliser at say 56.698 grammes per sq. metre is recommended. This is to stop the denitrification of the soil by Microflora which need nitrogen to break down the bark. In practice, however, bark has been put down without fertiliser without harmful results, notably at Surrey University and Highdown Chalk Gardens at Worthing. A fortified fine grade bark is also produced for top dressing of Rose Beds and Rockeries and for general growing and potting. This contains a Slow Release Fertiliser with Chelated Trace Elements and is becoming well known by the Amateur Gardener.

Weight/Volume Ratio. 1 tonne = 4.572 cubic metres when properly applied. Coverage at 5.08 cm depth = 82.296 sq. metres.

Some users of Bristol Bark

Soil Conditioning and Mulching. Milton Keynes Development Corporation. Worthing Corporation (Highdown Chalk Gardens). Telford Corporation. Surrey University. Bovis Homes (South) Ltd. Royal Botanical Gardens, Kew.

Consultancy Service

Further advice and On-Site appraisal may be obtained from **Bark Products Bristol Ltd.**