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Bracken is dangerous to animals, people and water supplies

RSPB advice to the Labour Government in 2000, persuaded Minister Elliot Morley and English Nature's Barbara Young to implement the policy of removing cattle and sheep from the British Uplands.

Called de-stocking or *wilding*, there has never been any solid scientific evidence to justify such action. One of the many catastrophic consequences has been the spread of uncontrolled bracken, aided by warmer and wetter conditions over recent years. Still spreading, this now covers an area of at least one and a half million hectares, twice the area of Lincolnshire, and approaching the national wheat crop of around two million hectares.

Bracken is the sixth most common plant occurring throughout Britain. It is not only notoriously difficult to get rid of, but is dangerous both to animals and human beings for it contains *shikimick acid*, *quercetin* and *ptaquiloside* – all of which are cancer-producing agents.

Currently there are major concerns that these chemicals and other toxins, spread from bracken's extensive rhizome network below the surface, are not only killing off plants which try to compete with it, but also allowing the same water soluble chemicals and toxins to leach into the Upland ground water supplies, which represent at least 70% of our drinking water. Carcinogens have been measured in water at levels as high as 45 micrograms per litre – the acceptable maximum is 0.005 to 0.016. This must impact on wildlife.

Bracken's amazing success is mainly due to the plants rhizome system below the surface, which can be vast – up to an acre for a single plant. These will weigh up to 40 tons and it can be judged that they hold a large reserve of food, mainly in the form of starch. For every hectare of bracken there can be up to 300 tons of rhizomes.

If cattle browse on the tender green bracken fronds, they invariably get mouth or stomach cancers. What is more, if cows eat it, the carcinogenic agents will be present in their milk.

Bracken can commonly grow to six feet, and on rich upland and lowland soil to as much as ten feet. This along with associated very serious *lyme* disease carried by tick infestation harboured by bracken, has rendered large parts of Britain inaccessible to walkers during the summer months.

Bracken can be temporally held in check by the stems being broken by cattle tramping it down, or by being rolled. If control by cutting is attempted, the plant has numerous dormant frond buds of varying ages on its underground rhizomes, so the destruction of the fronds above ground merely stimulates them to growth, as does burning.

Bracken is burned in March and April when safe to do so, enhancing the nitrogen and phosphate cycle for future reseeded of heather and palatable grasses. Applications of lime for improved grazing will discourage bracken.

Planting fast growing trees on ground infested with bracken rhizomes results in the bracken growing faster than the trees, or other plants, and shading them out, so that they fail to grow properly, or die.

Not only that, come autumn, the bracken above the surface dies back, falls and forms a dense moist mat, which harbours ticks and making it very difficult to see and free young trees, or more importantly any natural regeneration which takes place. Such tree planting or natural regeneration needs to attain a height enough to shade out the bracken, before it can recover.

Despite all the ploys to protect itself, bracken does have an Achilles heel, for pigs are strangely unaffected by these toxins and root out the rhizomes for their starch content and gobble them up.

State control of the environment by academics, as oppose to practical rural master craftsmen, appear to have raised two important advantages to justify tolerating bracken and delaying action.

One - as an important habitat for the high brown fritillary butterfly species – however planting wild violet plant species in open woodland guarantees much greater success for this rare endangered species. **Two** - the bracken rhizomes provide an important store of carbon – however it is now well proven that man-made CO₂ is not a driver of global warming, simply responding to increased temperatures and organic growth, which requires CO₂ to thrive.

No formal attempt is being made to address what is now a national environmental catastrophe, and implement widespread control, following the period 1990 to 2007, when Government did fund substantial programmes for *asulam* bracken

control though ongoing Higher Level Stewardship grant aid schemes. EU efforts to remove *asulam* from the market are still a serious threat.

Fortunately if pigs are impractical, we have the choice of repeated spraying by air or land the selective herbicide *asulam* at around £200/acre, or alternatively a more economic and practical farming choice of using repeated treatments of the cheaper less-toxic salt based glyphosate.

New techniques of spraying or weed wiping bracken, combined with controlled patchwork burning, if carried out properly, leave a clear seed bed for heather, or the new all year round palatable fescue cross ryegrass' seeds, such as Prior, in pure stands or seed mixtures.

The root systems of these new grass varieties are quickly established and are proven to be far more effective in storing water in the Uplands (and carbon if you want to believe that argument) than woodland, at a fraction of the cost, in a shorter time.

Ploughing has achieved very successful results in the past, and must be considered as a viable and economic alternative means of removing bracken infestation, and establish a range of other crops, which can thrive in the Uplands for farming and wildlife.

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Adapted from an article in Countryside by Percy Trett.

Edmund Marriage - British Wildlife Management – 23 JULY 2014.

Refs:

Bracken Control Group – www.heathertrust.co.uk

www.brackencontrol.co.uk – www.moorlandassociation.org

www.britishwildlifemanagement.net - patrickfound@btinternet.com