

## Stacking of Brash at Colliers Wood

Brash material from hedge laying and copse thinning operations is retained at site. (Arisings from two hedges laid by specialists was chipped and removed.) The material is stacked. When more substantial logs are obtained, these are piled into stable stacks. Site retention of arisings has both benefits and drawbacks.

- Natural leaf drop material and brash stacks decrease the amount of light that reaches to ground level. A restraint on flora seedling establishment.
- The decaying process releases beneficial nutrients that the soil absorbs. As thinning activities tend to be periodic in concentrated bursts, each spread over a few years, nutrient release can occur in a flush. This is not ideal for most woodland plants. However it is beneficial for invasive species whose colonisation overwhelms the other less robust flora that we prefer to encourage.
- The actions of dragging and stacking brash will release seeds that may be trodden into the ground and germinate. This is a particular problem with pioneer species that already freely send out off-sets, re-grow from the cut stumps and whose seed readily set in the wet surface conditions of the site.
- Brash stacks can invite arsonists. This is a particular risk after the material is no longer 'green' and decay is not yet well advanced. Fire could set back copse development by many years and involve a large cost for clearing up and species replacement.
- Log stacks can be stolen. The damage that is often created is the main concern.
- Log stacks can become unstable. Avoid steep stacking and use robust stakes to prevent logs rolling if stack is climbed on. Always, largest diameter at the bottom, smallest at the top. Periodic inspection needed.
- Stacks are a recluse and over wintering aid for small mammals, small birds and insects. The sites insect population is in need of every encouragement.
- Stacks can act as strategic movement controllers for people and larger animals.

### Forms of brash stacks

Each of the three common methods of stacking brash has been tried at Colliers Wood.

Numerous **small**, relatively closely spaced loose stacks have the advantage of minimising the labour input by reducing drag distance. Usually, this format does not create a secure refuge and is of little value for overwintering protection. They do decay and 'disappear' within a few years. Until then they may interfere with maintenance access. The nutrient injection is well spread. The seed dropped from brash is also more widespread and adds to the re-growth and offsets problem.

**Large** well compressed, widely spaced stacks entail longer drag routes and consequential are more labour intensive. This additional movement detrimentally compresses the surface of the ground. The stacks are susceptible to establishment of invasive species arising from ground shading. They tend to be warmer in the winter and consequently better for overwintering species. They make good homes and refuges for small mammals and birds. It is important, but difficult, to compress these stacks as much as is practically possible.

**Linear** stacks- also referred to as 'dead hedges' and 'windrows'- are the least labour intensive as a team will keep extending the stack as thinning progresses across a narrow front. Consequently the drag, or throw, distance is short and is the least likely method to cause significant ground compaction. Seed dispersal is also consequently minimised. Their value for overwintering species is low as they have less bulk and density. They provide a poor level of refuge but it is usually quick to reach and can be an important escape route to confuse predators. Their impact on ground level light is similar to the small stack method. A specific use of linear stacks is the control of people and animal movement, e.g.

dead hedges. Stacking height, width and density has to be sufficient to deter attempts to push through. When eventually our copse perimeter fencing is removed, access tracks will be formed through some copses. Dead hedges could be ideal barriers to form adjacent the tracks to discourage dogs and people leaving them and wandering around the copse 'protected' areas. This use will entail long drag distances and the availability of significant amounts of brash. Dead hedges can also be used parallel to ditches as a basic safety feature. (Commercially they are used in meadow areas for cattle control- windrows.)

### **FoCW modified brash stacks- HABITAT PILES**

The Friends began experimenting with different approaches to stacking brash in an attempt to minimise labour input and soil compaction. We noted that densely stacked material was quickly colonised by small mammals. This drew attention to the refuge and overwintering benefits that could be gained.

Following trial and error attempts, we concluded that the higher the density that could be achieved the less ground area was concealed from light and the greater the benefit for small mammals and insects. Density was aided by using branches as vertically perimeter stakes- and sometimes within the stack area for added stability- and ensuring the individual length of brash pieces was no more than 2m long and with all significant- less flexible- side shoots removed from branches. Manual compaction, (by body weight, progressively in layers), was employed to ensure a high density was attained. However, these stacks required a greater input of volunteers' time and entailed more frequent transit along the drag routes and thus more surface compaction.

This method was however adopted as our Habitat Piles. We became more careful in positioning the stacks, trying to minimise drag distance. Stack dimensions was varied based on anticipated volume of arisings from the area of copse determined to be thinned for each stack. The neater appearance of stacks allowed us to avoid trying to hide them from view. Subsequent checking back showed that they worked as refuges and the heat level during the winter was most definitely higher. The created refuge spaces were smaller and greater in number and provide better concealment. This should benefit insects.



Further modification is being tried by laying larger/heavier branches across the top of the stack in order to maintain pressure on the decaying material. No log sized material is employed. We also intend to trial hedgehog friendly habitat piles. These will utilise sections of wooden pallets laid at the bottom of the stacks. Care will be taken to ensure a minimum 12.5cm square access route and that stack locations are not prone to surface water flooding.

Stack sizes are usually 2.5 to 3.5m long x 1.0 to 1.5m (max) wide x 1.2 to 1.5m (very max) high. At least three stakes are used for each length side and these stakes have a pointed end that is well driven into the ground. We try to avoid overhanging material at the ends, aiming for a level of neatness. When possible we position stacks over cut tree stumps. Sometimes central stakes are added to ensure stability.