



Alternative uses for agroforestry products: woodchip for livestock bedding

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Many agroforestry systems produce woodchip, e.g. from thinning and pruning trees, as well as the primary product of short rotation coppice. Woodchip has many uses, including for bioenergy, mulching for weed control, turning into compost. It can also be used to provide an alternative bedding material to straw.

Woodchip as an alternative bedding material to straw is particularly useful in areas where straw is in short supply, and may offer many animal health and welfare benefits, with limited bacterial growth and less dust than straw.

Chip needs to be dry (less than 25% moisture content) and, if produced on-farm, it should be dried undercover for 6 to 12 months before use.

Woody species with thorns (e.g. blackthorn, hawthorn) should be avoided, but most other seasoned hard and soft woods will work equally well as woodchip bedding, although larch should also be avoided due to its tendency to splinter (AHDB, 2011).

Using larger chips allows livestock excreta to pass through to the lower layers of woodchip, leaving the upper layers relatively dry and friable. A shallow 10cm depth of woodchip is recommended with a fresh top-up layer applied as required when the chip becomes too moist, typically every seven to ten days if animals are on a dry diet; more frequently if fed a silage-based ration (AHDB, 2011).

The used bedding material can be composted afterwards (heaped and turned every 4 to 6 weeks) and the resulting material sieved to separate coarse woodchips that may be re-used as bedding. The smaller fractions can be used as a fertilizer and spread on land or further composted.



Figure 1. Calves bedded on woodchip

References: AHDB 2011 The Bedding Materials Directory, https://beefandlamb.ahdb.org.uk/wp-content/uploads/2013/06/bedding_materials_directory_2011_low_res131011.pdf

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