

# WASTEPAPER FOR ANIMAL BEDDING- FAQs

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## **A synopsis on behalf of The REMADE Programme**

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**Caledonian Shanks Centre for Waste Management  
Glasgow Caledonian University**

## **THE USE OF WASTEPAPER FOR ANIMAL BEDDING**

### **Introduction**

Wastepaper, particularly shredded newsprint, can be used as an alternative to traditional forms of animal bedding such as straw and sawdust. It provides the necessary high absorbency and thermal insulation required for animal bedding, along with several performance advantages described below.

### **Environmental Benefits**

Newsprint animal bedding consists of 100% recycled material and provides a market for recycled paper, providing an alternative disposal route to landfill, and contributing to recycling rates. The main material used is shredded newspaper, providing a valuable outlet for used newspapers, which are a major constituent of household waste and one of the dominant materials collected through kerbside collections and bring schemes.

### **Sustainable Waste Management**

The use of recycled newsprint for animal bedding is particularly applicable in rural area with a high concentration of farms and/or stables, where a sustainable local market for locally produced waste can be found. This adheres to the proximity principle, and is more sustainable in the long term than transporting newsprint from rural Scotland to the nearest UK newsprint mill in Cheshire.

## **Frequently Asked Questions**

### **What equipment do I need to produce newsprint animal bedding?**

You will require use of a shredder and baler, which can either be purchased or hired. Indicative prices for a combined shredder and baler are in region of £26,000 to £35,000. Suppliers of paper shredding machinery can be found in trade journals such as Materials Recycling Weekly, or in Yellow pages. The supplier used by Campbeltown Wastewatchers is ESG Systems in Devon (contact Ted Pearce 01395 267425). Unfortunately there are no Scottish manufacturers of paper shredders.

### **What size of shredder should I use?**

Campbeltown Wastewatchers use a 16mm width by 10-60mm length (length variable due to chopper on back of shredder) and have found this to be the ideal size for dairy cattle, which need a shorter size as the farmers put it through a slurry system that has narrow slats. Horses stable owners tend to prefer a longer cut.

Shorter shreds would cause problems with fibrous inhalation due to the high amounts of cellulose dust, and may be difficult to bale so may have to be processed on-site, but are more absorbent

Longer shreds can get stuck in animals' hooves, cause a litter problem as they are more easily windblown, and don't absorb liquid waste as effectively as smaller shreds.

### **What if I want to purchase newsprint bedding?**

Producers in Scotland include-

Greenlight Recycling Ltd in Alexandria (01389 721012)

Campbeltown Wastewatchers (01586 553858)

Historic Newspapers in Dumfries and Galloway (01988 402221)

### **What paper grades can be used to manufacture animal bedding?**

Newsprint is the most widely used material, although shredded cardboard and telephone directories have also been successfully used. Magazines, pamphlets and other stapled materials are not used due to the risk of animals consuming staples.

### **What animals can it be used for?**

It has been used mainly with dairy cattle and horses, but is also appropriate for use with sheep, beef cattle, pigs and poultry. Vets, pet shops and animal shelters have traditionally used paper bedding for small animals.

### **What are the benefits of using newsprint bedding?**

#### **Horses**

Newsprint bedding has been particularly successful with horses as it generates less dust than straw, so is beneficial for use to prevent respiratory problems, particularly for horses with allergies to straw. It is sterile (free of allergens, toxins) unlike traditional bedding materials that can contain allergens such as dust, fungal spores, etc. It is excellent for the treatment of equine skin disorders and hair loss (due to lack of irritants), and aids dietary control, as horses are not tempted to eat it. Newsprint bedding keeps horses cleaner and easier to groom than other types of bedding. There is no evidence of newsprint staining white/light coloured horses.

#### **Dairy Cattle**

Mastitis is disease causing an inflammation of the mammary glands in cattle, with bedding material the primary source of environmental mastitis pathogens. A major advantage of using newspaper based bedding is that it doesn't support the growth of mastitis bacteria, reducing incidence of the disease in dairy cattle.

#### **Absorbency**

The fibrous nature of newspapers makes it highly absorbent, the crucial factor for animal bedding, along with its high thermal insulation qualities. Cutting the fibres via shredding or cutting allows the newsprint to draw more liquid into the fibres. Because of this, newspaper bedding is highly absorbent – able to hold 2-6 times more water than straw. There appears to be conflicting evidence on the durability of newsprint bedding, with some studies proving it to be longer lasting than straw or sawdust, while other studies found newsprint bedding needed to be changed more frequently than sawdust.

#### **Fertiliser Use**

Used newspaper bedding composts well, and can be slurried with water and spread on fields as a fertiliser with no harmful leaching.

### **Is newsprint bedding easy to manage?**

Shredded newspaper can be slightly more difficult to manage than other types of animal bedding as newspaper shreds spread easily (by humans or animals) leaving paper trails that can look unsightly and can mat when wet.

### **Is the ink from newspapers toxic?**

Ink is non-toxic in either liquid or dry form so should pose no danger to animals if ingested. A study by Penn State University found no adverse effects even when cattle ate up to 2.4 pounds per head daily. Studies elsewhere with beef cattle indicate no heavy metal contamination of meat at intake rates of 10-15% of their diet. Research on fields fertilised with used newspaper bedding showed no heavy metal build-up, in fact a study at Potter County showed lower levels of heavy metals with newspaper bedding than straw.

Inks used in paper products no longer contain toxic substances such as lead, cadmium and other heavy metals. These have been substituted by the use of organic pigments. Caution may be necessary with the use of coloured inks, as studies have concentrated on black inks.

### **Are there any funding possibilities for setting up a newsprint bedding scheme?**

Organisations such as *Campbelltown Wastewatchers* and *Greenlight Recycling* have received funding from a number of sources including:

- Landfill Tax Credit Scheme
- Recycling Credits from local authorities
- Local enterprise companies
- European funding (ERDF)
- National Lottery Funding