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FIRE SERVICE STAFF
COLLEGE LIBRARY

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Our Reference: FIR/76 41/17/1
Your Reference:

To all Chief Fire Officers

45586

6 April 1976

Dear Chief Officer

HAZARDS TO FIREMEN POSED BY LARGE HAY OR STRAW BALES (21/26)

It has recently been brought to my attention that many farmers are using a new system for baling hay or straw into large round or oblong bales. A brief description of the bales and details of the problems involved are given below.

Features of Large Bales and Storage Arrangements

Large bales are of two types - Round and Oblong.

Round Bales

Size - 2' to 6' in diameter x approximately 5' wide.

Weight - Up to 1500 lb with a density of up to 15 lb/cu ft.

Storage - Outside. Hay bales are usually left in single lines with a small gap between each bale.

Straw bales can be similarly stored or they may be stacked in pyramid style, ie lying on their sides, up to four bales high giving an overall stack height of up to 24'.

Sometimes, particularly if the ground is sloping, the end bales at the base of the stack are staked (or similarly supported) to prevent them rolling out and the stack collapsing.

Inside Storage. Round bales are usually stacked on end in vertical-columns up to three or sometimes four bales high.

Oblong Bales

Size - 7' to 8' long x 5' high and 5' wide.

Weight - Up to 14 cwt with an uneven density of between 4-8 lb/cu ft (approximately 75% of the density of conventionally baled material of the same type).

Storage - Can be stacked up to four bales high giving an overall stack height of 20'.

Special care is necessary when dealing with fires in stacks made of large bales. Owing to the comparatively low density and shape of the bales the stacks tend to be rather unstable. There is also the danger of personnel falling between the bales as they try to reach the seat of a fire.

Because large bales are very heavy (some may weigh as much as 1 ton) the most suitable equipment to use for handling them on fairly level ground is a fork lift truck. Otherwise a tractor fore-end loader, with a proprietary make of big bale handling attachment approved for the loader by the manufacturer, should be used. The tractor on which the loader and attachment are mounted should be a heavy one for maximum stability and should be fitted with a safety cab.

Further information about local conditions, storage arrangements and systems of handling may be obtained from the local offices of the Ministry of Agriculture, Fisheries and Food and the National Farmers Union.

Yours sincerely

Ernest Hollander

NO.21/76

**The Fire Service
College**



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