Maine Farm Safety Program

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Harvesting Hay Safely

Before Harvesting

Farmers often grow hay and forage crops on ground too rough, steep, or unsuitable for row crops. This means it's especially important to prepare fields and machines for safe use. Remove stumps, stones and foreign objects, or mark them clearly to prevent upsets, breakdowns or dangerous driving situations. Inspect any ditches and banks for undercutting. Plan harvesting so equipment travels downhill on steep slopes to avoid overturns. Space tractor wheels as far apart as possible when operating on slopes.

Safe operation during baling depends in part on how well the baler is prepared for use before the season starts. This preparation may not only reduce field down time but also may prevent accidents. This pre-season preparation also will allow necessary lead time to get needed replacement parts and to do a thorough preparation job. Always disengage the power take-off (PTO), shut off the tractor engine, and take the ignition key with you when you leave.

Thoroughly clean the baler to remove any accumulated field trash or other debris. Lubricate all parts according to manufacturer's recommendations. Proper lubrication

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- **Always disengage the PTO and shut off the engine to service the equipment.**
- **ROPS should be used on tractors handling round bales.**
- **Use equipment specifically designed for the purpose to handle large round bales.**
- **Keep all guards and shields in place.**

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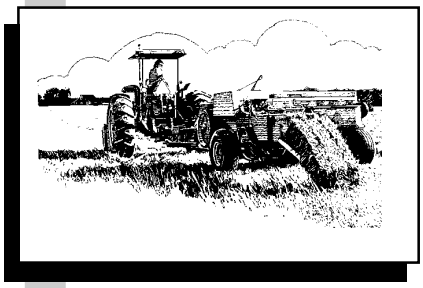
can reduce unnecessary wear on parts and prevent overheating that could cause a fire.

Carefully check for loose or missing nuts, screws, guards, or bent teeth. Replace missing guards to prevent accidental contact with the components they guard. Replace bent or missing pickup teeth to ensure effective feeding of material into the feed rolls.

Inspect all belts or chains for evidence of wear or breakage. Maintain belt tension according to the manufacturer's recommendations. Belt lengths should be matched to prevent slippage that can cause plugging and heat build-up. Belts that must be spliced should be trimmed and laced squarely. New belts should be checked periodically until they are broken in and length has stabilized. Before replacing a belt or chain, consult the operator's manual for instructions on securing the upper chain or removing load from the belt tension springs.

Make sure the hydraulic hoses are clean and in good repair and hooked up correctly. Check the twine feeding and cutting mechanisms to see that they are working properly and that your twine is in good condition. Also check the slip clutch, roll scraper, and rear gate latch to make sure they are adjusted and functioning according to the manufacturer's recommendations.



Finally, check all lights and warning reflectors, and clean your *slow-moving vehicle* emblem. Check your fire extinguisher to see that it is in proper operating condition.

Crop Preparation and Baling

The terrain and the density of the crop determine the windrower speed. When operating over rough terrain or on hillsides, take care to avoid holes or obstacles that can tip a windrower or throw you from the machine. Crop density also affects the speed at which you operate the windrower. The more often you must unclog the machine, the higher the chances for an accident. If clogs must be removed, always turn off the machine.

Repeated plugging of the baler may tempt the operator to try unplugging the baler while it is running. Never try to unplug the baler until you have disengaged the power take-off and shut off the tractor engine. Also, never attempt to feed the material into the baler by hand or feet. One slip could be deadly. Never attempt to hand feed or remove twine from the machine while it is running.

Conventional Balers

The flywheel maintains the uniform momentum of a baler's working parts. It also keeps the machine operating for a considerable time after power is disengaged. Never attempt to work on a baler until the flywheel has completely stopped.

The flywheel can be turned manually to permit slow motion observation of knotter function. However, it should never be turned while someone else is working on the knives, knotter, or other moving parts.

Round Bale Hazards

There are some key points to consider when harvesting and handling large round bales.

1. Equipment used to handle the big bales should be fitted with roll-over protective structures (ROPS). These will help cushion the blow should a bale roll down the loader arms.
2. Never attempt to carry a round bale in a loader bucket. All loaders should be equipped with a spear or grapple that is specifically designed for the size of the round bales being handled.
3. Loaders should be equipped with a restraining device that will prevent a loose bale from sliding backwards.
4. Loaders must be large enough and equipped with sufficient counterweight to handle bales safely. Set wheels at maximum width to increase stability.
5. Avoid steep slopes and rough terrain when moving bales with a loader. If it is impossible to avoid sloping land, approach bales from the downhill side.
6. Avoid sudden stops, starts or changes of direction. Be very cautious and travel at low speed when carrying a bale.
7. Always keep bales as low as possible for maximum stability. The risk of a bale breaking free is greater when loader arms are raised because the load is less stable.
8. Wagons used to haul bales should be of sufficient width and have end racks to prevent bales from moving off the ends and sides during transport.
9. Use good judgment when stacking bales in storage. High stacks make efficient use of available space, but removal could be hazardous.

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Carefully transport round bales from the field to storage. Keep the load as low as possible. Use the controls smoothly, avoiding jerky movements. Do not travel too fast and make sure that there is adequate ballast on the front and rear to counter balance the load.

Forage Harvesters

Stay well clear of the discharge spout while the harvester is operating. To avoid being hit by objects from the spout, completely stop the machine before hooking up wagons.

Doors and shields must be tightly latched during operation to deflect objects thrown by the cutter. Components may continue to rotate for several minutes after the power is shut

off. Do not open doors until all parts have stopped moving.

Knives must be kept sharp and properly balanced for safe, effective operation. Follow maintenance procedures specified in the owner's manual.

Harvesting hay is an important farm job. Doing it right is the key to a better crop and safer working conditions. Equipment that is running properly will speed the harvest and help to reduce accidents.

This Maine Farm Safety fact sheet is part of an educational fact sheet series produced by University of Maine Cooperative Extension. For more information on farm safety, contact your county Extension office. Information in this publication is provided purely for educational purposes.

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