

Conquering “Mount” Manure

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Take-Home Message:

- The average light-breed horse produces 50 pounds (22 kg) of manure (feces + urine) every day, or about 1 cubic foot (28 liters). Over the course of a year, about 8.5 tons of manure will be produced by one horse (12 tons if manure was mixed with bedding).
- Manure that is mishandled can become a significant source of water pollution. Ammonia, nitrates, phosphorus, heavy metals and organic material found in horse manure can be carried away by storm water runoff into rivers, lakes, streams and ponds, as well as leach down into groundwater. These pollutants kill fish and other aquatic life and reduce water available for farming, industry, recreation and drinking.
- Because of the risk to water quality, ALL horse owners are responsible for properly handling, storing and disposing of their horse manure.
- Locate manure storage and composting facilities at least 330 feet (100 meters) away from springs and wells and 100 feet (30 meters) from any open body of water.
- Avoid storing manure in low-lying areas where storm water tends to pool.
- Provide a covering for the manure storage facility if you are in a high-rainfall area.
- To prevent pollutants from leaching into groundwater, store manure on a concrete slab or a well-compacted clay soil base.
- Do not allow manure to accumulate in corrals, paddocks or other dry-lot facilities.
- Divert “clean” storm water around areas where manure accumulates (storage facility, corrals, feeding areas, etc). If storm water does come in contact with manure, construct a catch basin to collect and contain contaminated runoff.
- Create “vegetative buffer strips” (areas of grass, shrubs and trees) between surface waters and areas where manure accumulates to filter nutrient and sediment runoff from manure.
- When disposing of manure by land application, apply only the amount of manure that is required by the forage or crop growing there (i.e., apply manure at agronomic rates). Land application of manure should only occur during the growing season (May – Sept).
- Fence off horse access to open bodies of water.
- If your property is too small to effectively utilize the manure produced there, make arrangements to have the manure removed off-site.
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Consider composting to stabilize the nutrients in manure and create a more desirable end-product for gardeners, landscapers, hay growers, and construction/land reclamation projects. Composting also kills intestinal parasites and destroys weed seeds, making it ideal as a slow-release fertilizer for pastures. Compost is also an absorbent bedding.

- Partner with others in your area to create a “manure co-op.” Participants can share in the labor of managing the pile, as well as the cost of larger equipment that makes handling manure easier. A larger volume of manure may help to attract more profitable end-users.
- Bottom line: if carefully managed, manure can be a valuable resource; if handled improperly, manure can become a liability.

References:

For more information on manure management, refer to the Alberta Agriculture, Food and Rural Development publication, “Manure and Pasture Management for Horse Owners” (AGDEX 460/27-1). You can also view this publication online at:

[http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/agdex7175?opendocument](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/agdex7175?opendocument)

You can obtain a “Reference Guide” about the Agricultural Operation Practices Act from Alberta Agriculture, Food and Rural Development or your regional National Resource Conservation Board office. You can also view the Reference Guide online at:

[http://www1.agric.gov.ab.ca/\\$department/deptdocs.nsf/all/epw5592](http://www1.agric.gov.ab.ca/$department/deptdocs.nsf/all/epw5592)

For more information on the Agricultural Operation Practices Act legislation, refer to the Natural Resources Conservation Board website:

<http://www.nrcb.gov.ab.ca/web/legislation/aopa.cfm>

