

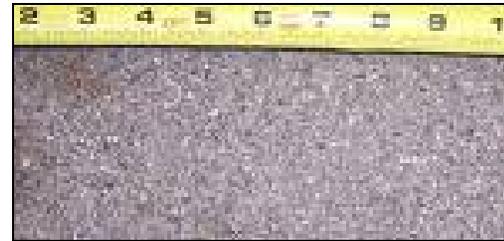
FOOTING MATERIAL OPTIONS



HOGFUEL



WOOD CHIPS



SAND



CRUSHED GRAVEL



PEA GRAVEL



FILTER FABRIC



TURF or SOD

Material	Description	Where Used	Positives	Negatives	Installation & Maintenance	Life	\$
HOG FUEL	wood debris (bark & wood fiber) from land clearing that is put through a chipper called a "hog"; medium grade recommended for horses (<3.5 in); coarse acceptable for cattle (< 5 in); sold in units - 200 cu. ft = 1 units.	confinement areas for all livestock, arenas, walkways, lanes	soft; drains well, reduces urine odor; good footing in ring for specific riding disciplines (springy)	Availability – in short supply; now used as a feedstock in co-generation plants; order 6-8 weeks before needed; inspect. <u>variable quality</u> ; decomposes- so must be replaced; foreign material &/or sharp pieces present which may lodge in feet; leachate is a pollutant; stays wet for long periods – thrush, rain rot still a threat; a small % of horses are allergic to cedar;	strip site before installing (i.e. level, remove mud and organic material). Best done during driest time of year	new material must be added every 1 or 2 years	\$65 per unit -200 cu ft.: \$ 0.33 /sq ft @ 12 in deep; \$132 per 400 sq ft paddock for material

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WOOD CHIPS	usually derived from softwoods; mill ends (kiln dried) and other materials that are broken down to smaller pieces with a hammer mill or grinder	similar use to hog fuel	may be more readily available than hog fuel	foreign material &/or sharp pieces present which may lodge in feet;	strip site before installing (i.e. level, remove mud and organic material).	similar to hog fuel	similar to hog fuel
SAND	medium coarse or coarse washed sand - sometimes called arena sand; unwashed sand becomes dusty and needs to be wetted down &/or mixed with sawdust, compost or other organic material	arenas; paddocks	soft; easy to pick; sterile	moves around; urine odors; potentially dusty; when wet it clings to feet; coarse washed sand can be quite abrasive and also gets worked between the hoof wall and laminae; unwashed sand less abrasive but it is also dustier; sand colic a concern	strip site before installing (i.e. level, remove mud and organic material).	add additional sand to replace material carried away by wind, manure collection	\$15 cu/yd for coarse, washed sand - \$0.28/sq ft for 6" layer - \$112 per 400 sq ft paddock \$12 cu/yd for unwashed sand - \$0.22/sq ft for 6" layer - \$88 sq ft paddock
SAND-ORGANIC MIX	sawdust, compost, peat mixed with sand	arenas, paddocks	soft cushion; easy to pick; inclusion of organic material reduces dust and odors	organic material decomposes	organic material must be incorporated into sand; gravel base needed;	organic material needs periodic renewal	

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CRUSHED GRAVEL	5/8 in minus crushed gravel for wet sites to provide base for surface material and to prevent mud; 3/4 clear (washed) may be substituted on other sites because it drains more readily	horses paddocks, high traffic areas	when properly prepared has less tendency to migrate into sub layer; sterile	hard; 5/8 th size...sharp pieces have potential to enter hoof laminae: urine odors may build up;	strip site before installing (i.e. level, remove mud and organic material).	lasts many years	\$17.50 cu/yd - \$0.43/sq ft for finished 6" layer - note: order 8 in. of material for a 6 in compacted layer; \$172 per 400 sq ft paddock
PEA GRAVEL	3/8 th diameter & smaller; clear; not suitable as a base	horses paddocks	provide soft cushion; said to "condition" horses feet; easy to pick; recommended by local equine veterinarians	urine odors may build up; some complain it "moves around" too much; horses may get a bit sore in feet, ankles while they adapt to it;	needs a base such as 5/8 th gravel under it to keep it from migrating into subsoil;	lasts many years	\$16 cu/yd - \$0.20/sq ft for a 4 in layer; a 400 sq ft paddock with a 6 in crushed base capped with 4 in of pea gravel: \$252
CONCRETE	generally not considered suitable for horses	dairy cattle; on aprons of feed bunks for beef cattle	very hard	slick, unsafe footing, hardness may contribute to laminitis	strip site before installing (i.e. level, remove mud and organic material).	lasts many year	

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TURF or SOD	exercise and riding area; tall fescue, quack grass, bent grass among suitable species for exercise paddocks	good for horses that need opportunity to run	natural surface; can also be used as pasture	high maintenance – horse access must be closely monitored and regulated	may be necessary to install drainage; will take several months to establish good sod base; will need to be mowed	10 years or more with good O & M; < 1 with poor O & M	seeding cost: \$650/acre; drainage: \$4.00 linear/ft
FILTER FABRIC or GEOTEXTILE CLOTH	woven and non-woven plastic; prevents soil from migrating into footing material while still allowing water to drain through	at base, between layers, interface material		not advised if horses dig – needs to be at least 6 inches below surface (remember – bark decomposes)			\$0.36 sq.ft. installed
HOOF GRID	interlocking grids (approx 13 in sq ea) made of recycled plastic installed on top of gravel drainage layer and topped with fill (e.g. sand, top soil)	heavy use areas	high load capacity	relatively high cost	strip site before installing (i.e. level, remove mud and organic material); surface fill may need to be replaced.	lasts many years	