

Appendix Table A.1. Yard management recommendations of U.S. Centers for Disease Control and Connecticut Tick Management Handbook. For each recommendation evaluated in the current study, description is provided of how adherence to the recommendation was measured in yards.

variable	CDC recommendation	Tick Management Handbook recommendation	included in study	values recorded	reason for exclusion from study
fencing	"Discourage unwelcome animals (such as deer, raccoons, and stray dogs) from entering your yard by constructing fences."	"Use plantings that do not attract deer or exclude deer through various types of fencing."	1	(1) Complete, or nearly complete fencing near the perimeter of the property, such that >0.75 of the property is enclosed; (2) Complete, or nearly complete fencing that encloses between half and three-quarters of the property; or (3) Smaller or less continuous fenced areas than (1) or (2) (including yard w/ no fencing).	
wood pile	"Keep wood piles on the wood chip barrier, away from the home." "Stack wood neatly and in a dry area (discourages rodents)."	"Move firewood piles and bird feeders away from the house"	1	Presence or absence of firewood pile (at least the approximate volume of a cube with sides the length of the drag cloth) in yard. Exclude chopped up trees, brush piles, rotten wood, wood pile with plants overgrown throughout.	
leaf litter removal	"Remove leaf litter." "Removing leaf litter and clearing tall grass and brush around houses and at the edges of lawns will reduce the numbers of ticks."	"Remove leaf litter, brush and weeds at the edge of the lawn." "...remove leaf litter accumulations around the house and lawn perimeter"	1	Area of forest from which leaf litter has been removed of at least one square meter, as proportion of forest area.	
trash	"Remove old furniture, mattresses, or trash from the yard that may give ticks a place to hide."		1	Presence or absence of trash in yard. Consider as trash only items that do not appear to be in use and are of size of 1-gallon container (3.78 L) and larger.	
stone wall	"Use a 3 ft. barrier of wood chips or rock to separate the "tick zone" and rock walls from the lawn."	"Keep potential mouse nesting sites in stonewalls and woodpiles near the residence free of brush, high grass, weeds, and leaf litter." "Seal or rework stonewalls near or under the home to reduce harborage."	1	Presence or absence of stone wall (pile of stones at least 1 foot (30 cm) tall and 2 meters long). Exclude walls made of brick or other manufactured materials.	
barrier of wood chips, mulch, or gravel between lawns and wooded areas or stone walls	"Use a 3 ft. barrier of wood chips or rock to separate the "tick zone" and rock walls from the lawn." "Place a 3-ft wide barrier of wood chips or gravel between lawns and wooded areas to restrict tick migration into recreational areas."	"...a three-foot wide or broader woodchip barrier may help reduce tick abundance on the lawn...Mulches are often organic materials like bark chunks or shredded bark, but can also be small stones or gravel. Wood chip and tree bark, gravel, or similar landscaping materials between woods or stonewalls and lawn as a buffer or barrier can help reduce the number of ticks on the lawn and delineate the tick zone."	1	Presence or absence of strip of wood chips, mulch, or gravel between forest and lawn, greater than or equal to 3 feet (91 cm) across (width of drag cloth).	
cat		"Manage pet activity, keep dogs and cats out of the woods to reduce ticks brought back into the home."	1	Presence or absence of indoor/outdoor cat in household.	
bird feeder		"Move firewood piles and bird feeders away from the house."	1	Presence or absence of bird feeder (with or without feed inside it). Exclude hummingbird feeders.	
Japanese barberry		"Japanese barberry (<i>Berberis thunbergii</i>) is considered invasive. Both nymphs and adults of the blacklegged tick have been reported to be around twice as abundant in areas dominated by deer-browse resistant exotic invasive plants, particularly Japanese barberry, than areas dominated by native shrubs."	1	Presence or absence of Japanese barberry plant of at least 1/2 the width of the drag cloth (45 cm) in a strip transect defined by the path of the cloth during a flagging interval (30 seconds).	
deer-resistant plantings	"Removing plants that attract deer and constructing fences or other barriers may help discourage tick-infested deer from coming near homes."	Use plantings that do not attract deer or exclude deer through various types of fencing.	0		not possible to rapidly measure
Playground areas		"Move children's swing sets and sand boxes away from the woodland edge and place them on a wood chip or mulch type foundation."	0		not possible to rapidly measure

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mowing	"Mow the lawn frequently."	"Keep grass mowed."	0		not possible to rapidly measure over course of season
tick migration zone	"Maintain a 9 ft. barrier of lawn between the wood chips and areas such as patios, gardens, and play sets."	"3 yard tick migration zone"; "Within the lawn, most of the ticks (82%) are located within yards of the lawn perimeter particularly along woodlands, stonewalls, or ornamental plantings."	0		Did not expect to have adequate power to detect effect, given this also requires presence of a 3-foot barrier, which is present in low proportion of yards.
tall grass, brush, weeds	"Removing leaf litter and clearing tall grass and brush around houses and at the edges of lawns will reduce the numbers of ticks."	"Remove leaf litter, brush and weeds at the edge of the lawn." "Keep potential mouse nesting sites in stonewalls and woodpiles near the residence free of brush, high grass, weeds, and leaf litter."	0		not possible to rapidly measure
groundcover		"Restrict the use of groundcover, such as pachysandra or myrtle in areas frequented by family and roaming pets." "Restrict the use of groundcover, such as pachysandra or myrtle in areas frequented by family and roaming pets (due to effects on ticks and small mammals)."	0		not possible to rapidly measure
sealing stone walls and foundations		"Cleanup and seal stonewalls and small openings around the home."	0		not possible to rapidly measure
trim branches		"Trim tree branches and shrubs around the lawn edge to let in more sunlight."	0		not possible to rapidly measure
hardscape / xeriscape		"Adopt hardscape and xeriscape (drier or less water demanding) landscaping techniques with gravel pathways and mulches." "Use hardscape and xeriscape landscaping (i.e., brick, paving, decking, gravel, container plantings, low water requirement plantings) in areas immediately around the house that are frequently used."	0		not possible to rapidly measure
trails		"Widen woodland trails."	0		not possible to rapidly measure
prune base of plants		"To reduce ticks adjacent to homes, prune trees, mow the lawn, remove leaf litter accumulations around the house and lawn perimeter, and cut grass, weeds, and brush along edges of the lawn, stonewalls, and driveways. Plants can be pruned to provide open space between the ground and base of the plant."	0		not possible to rapidly measure
leaf litter disposal		"Composting or removal by appropriate bagging is an acceptable method of disposing leaf litter. Leaves should not be simply moved to another part of the property."	0		not possible to rapidly measure
bird feeder timing		"Set up bird feeders in fall and winter when natural foods are scarce (and the immature stages of I. scapularis are not present on birds)"	0		not possible to measure during Spring/Summer visits to yards