

Management Calendar for Cool-Season Lawns

	Early Spring March-May	Late Spring May-June	Early Summer July-August	Late Summer August- September	Early Fall September- October	Late Fall - Winter
Mowing	Mow at 2.5" to 3.5" depending on species* for the entire growing season, returning clippings to the lawn. Never remove more than 1/3 of the total canopy height at one time. Mowing at the shorter end of the recommended range will require more frequent mowing than at the higher end of the recommended range. Mowing too infrequently – called scalping – accelerates growth rate, reduces quality and canopy density, and encourages weed encroachment.					
Irrigation	Irrigation is generally not necessary unless the weather is abnormally warm and dry.	More lawn problems arise from over-watering than under-watering. Lawns should be watered deeply with 0.5 to 1.0" of water (depending on soil type) only when wilt is observed. Common symptoms of minor drought include light blue-green color and lingering footprints. Automatic irrigation systems should be closely monitored, and be equipped with either a rainout or soil-moisture sensor to prevent irrigation when there is sufficient soil moisture.			Irrigation is generally not necessary unless the weather is abnormally warm and dry.	
Fertilizer	Fertilizer not recommended unless lawn was established the prior fall and has low density.	Apply 0.50 to 0.75 lbs of nitrogen per 1000 ft ² once growth rate slows after spring surge. Fertilizers containing 50% quick and slow release nitrogen are a good choice for even feed.	Apply fertilizer if lawn quality is unacceptable. Newer lawns are more likely to benefit from early summer fertilizer than older, well-established lawns. Controlled release and organic fertilizers reduce burn risk.	Apply 0.50 to 0.75 lbs of nitrogen fertilizer per 1000 ft ² to recover from summer stress.	Young lawns (<10 years old) and lawns with poor density and quality can benefit from a mid-fall fertilizer application. Fertilizers should contain mostly water soluble nitrogen (WSN) sources.	No fertilizer is recommended because uptake is low during this time.
Cultivation	Avoid cultivation until turf resumes active growth. Lawn aeration or thatch removal (dethatching) is permissible if soil compaction exists or thatch is greater than ¾" in depth. Cultivating through a preemergence herbicide barrier may reduce efficacy.		Avoid aggressive lawn cultivation.	Because of summer annual weed pressure in spring, lawn aeration or thatch removal (dethatching) is preferred in fall and permissible if soil compaction exists or thatch is greater than ¾" in depth.		Avoid lawn cultivation.

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Weeds	<p>Apply a preemergence herbicide for control of summer annual weeds such as crabgrass when the soil temperature reaches 55F at a 2" depth and after the risk of a hard frost has passed. Depending on soil type, turfgrass density, and the history of summer annual weed prevalence, a lawn may require a second application 8-10 weeks after the first for season-long control. This is especially true for later-germinating weeds such as goosegrass or foxtails.</p> <p><i>Note: Winter annuals such as annual bluegrass, henbit, and mouseear chickweed germinate in the fall. They flower in spring and die in early summer. Thus, postemergence control isn't recommended.</i></p>	<p>Postemergence control of summer annual weeds is most successful when weeds are young in late spring and early summer.</p> <p><i>Note: Most preemergence herbicides will not control emerged seedlings. However, a postemergence herbicide can be mixed with midsummer-applied preemergence herbicides to control existing young weeds and prevent new seedlings from emerging.</i></p>	<p>Because mature and/or stressed weeds are difficult to control, control with herbicides is not recommended for most weeds. Summer annual weeds will naturally die after the first frost.</p> <p><i>Note: Use a preemergence herbicide in lawns with a history of winter annuals. If you plan to seed in fall, don't make this application unless using a product that is safe in cool-season seedbeds.</i></p>	<p>Postemergence control of broadleaf perennials and winter annuals is most successful in fall. Time the first application around the first frost. Combination herbicide mixtures are generally more successful than individual active ingredients.</p>	<p>Weed control with herbicides is generally not recommended.</p>	

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Diseases	<p>Superficial snow mold damage will naturally recover with warming temperatures.</p> <p>Cool and wet weather can favor leaf spot, but treatment not recommended for lawns.</p>	<p>Dollar spot and leaf spot are most common this time of year. Nitrogen fertilization can improve quality.</p> <p>Though damage is typically not observed until summer, the pathogens that cause root diseases such as necrotic ring spot or summer patch of Kentucky bluegrass colonize roots during spring. For sites with a history of disease, make preventive fungicide applications when soil temperatures reach 65F at a 2" depth.</p>	<p>Brown patch is common during hot and wet weather – damage is aesthetic and will not kill turf, so fungicides are generally not recommended for lawns. If desired, fungicides should be applied preventively when conditions are conducive for disease development.</p> <p><i>Note: Summer patch symptoms that can resemble drought stress become visible on Kentucky bluegrass during heat/drought stress, but fungicide must be applied preventively in spring for control.</i></p>	<p>Dollar spot, rust, and gray leaf spot are the most prevalent diseases. Late summer fertilization will reduce dollar spot and rust injury. Gray leaf spot is most common on perennial ryegrass in late summer to early fall. Fungicide applications need to be preventive for adequate control, but are expensive and may not be practical for home lawns.</p> <p>Snow mold can develop in late October under tree leaves or other chronically wet areas. Improve air movement and reduce irrigation to slow disease development.</p>	<p>Snow mold can form under large snowbanks. Avoid creating large snow piles. Preventative snow mold fungicides are not recommended for lawns.</p>	

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Insects	Overwintering white grubs return to the surface.	Treat billbug adults if there is a history of damage in Kentucky bluegrass or perennial ryegrass. White grub adult beetles begin to emerge.	Preventively treat for billbug larvae and white grubs if there is a history of damage. Use a soil insecticide with a longer residual – flying adult beetles are laying eggs at this time. <i>Note: Tall fescue is more tolerant of white grubs than Kentucky bluegrass or perennial ryegrass. Summer irrigation attracts female beetles that deposit eggs, and increases egg survival.</i>	Curative insecticides will control actively feeding white grubs if an application wasn't made earlier in summer. Timely irrigation may limit turf damage if roots have been injured from white grub feeding. Armyworm, fall armyworm, and sod webworms may be present – scouting may be necessary. Damaging populations sporadically occur, so treatment is only recommended for severe infestations.	White grubs are descending in soil for overwintering.	Winter grain mites may be present in Kentucky bluegrass, fine fescues, or perennial ryegrass, but typically do not cause damage in the Great Plains, and control is not recommended. Winter grain mites may be more common on sandy or loamy soils.



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Establishment	Cool-season grasses may be seeded or sodded in spring, but summer stresses and competition with summer annual weeds often interfere with establishment. The herbicide mesotrione can be applied at seeding to reduce summer annual weed pressure.			Seeding cool-season grasses is most successful in late summer to fall.		Dormant seeding is possible, but has similar challenges as spring seeding.

*Tall fescue, Kentucky bluegrass, fine fescues, and perennial ryegrass are potential cool-season lawn species for Nebraska, but tall fescue (Eastern NE) and Kentucky bluegrass (Western NE) are most appropriate. Management strategies are best determined by the effects of environmental conditions on the managed species (and relevant pests). Thus, we recommend using environmental triggers such as soil temperature and moisture, or growing degree days, or plant responses such as wilt or loss of green color to schedule management. This calendar is only meant as a general guide for when appropriate environmental conditions occur for each management category.

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