A healthy lawn adds value to your home and improves the quality of the environment in which we live. A vigorously growing lawn is capable of filtering out air pollution, slowing the movement of chemicals and fertilizers into surface water, protecting soil from washing away, and releasing life-giving oxygen for us to breathe.

Most lawn grasses require at least some fertilizer each year to keep them strong and actively growing. Appropriate amounts of fertilizer will help maintain turf vigor, but too much can cause problems. Overuse of fertilizers can kill the grass that you are trying to grow, and unused portions will run off into surface waters and pollute drinking water supplies.

The three most common nutrients in fertilizers are nitrogen (N), phosphorus (P), and potassium (K). Unfortunately, N and P are the two most common water pollutants.

Nitrogen can be a health hazard to infants and animals when present in high concentrations in water. It can also cause algae blooms that choke out other aquatic life-forms.

Phosphorus is a major cause of excessive aquatic plant growth. This results in oxygen depletion in ponds and lakes, which can cause fish kills resulting in an undesirable odor and taste.

The best method for determining how much "food" your lawn needs is a soil test. Contact K-State Research and Extension, Douglas County, for information on submitting soil for testing. Lawns in our area generally require more nitrogen than phosphorous and potassium.

Fertilizing Tips

- ✔ Fescue, bluegrass, and ryegrass are best fertilized in May, September, and November; zoysiagrass before July.
- ✔ In spring and early fall, use fertilizers that contain slow-release nitrogen. Use quick release nitrogen fertilizers in early winter.
- ✔ Do not apply fertilizers with added weed killers or insecticides if they are not needed. Weed and insect pests can be better controlled with spot treatments that focus on the problem.
- ✔ Do not apply fertilizer when heavy rain is expected.
- ✔ After fertilizing, apply about a half-inch of water to the lawn. This will move the nutrients into the topsoil where they are more likely to be used by the grass.
- ✔ Use a drop spreader rather than a rotary type spreader when applying fertilizer near open water.
- ✔ Fill spreaders over hard surfaces for easy spill cleanup.
- ✔ When using the spreader, turn it off before stopping and when making turns. Then, turn it back on after you have resumed walking. Shut off the spreader when passing over pavement. Walk in straight lines, and be careful not to overlap or skip areas.
- ✔ Do not dump or wash excess fertilizer into storm drains or sewers. Return any unneeded portions to the Lawrence–Douglas County Household Hazardous Waste facility. Call 832-3030.

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Douglas County Conservation District

Douglas County Conservation District
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Lawrence Waste Reduction and Recycling

Funding provided by the State Conservation Commission through appropriation from the Kansas Water Plan Fund and the Lawrence Recycling Division.

**Kansas State University
Agricultural Experiment Station
and Cooperative Extension Service
Manhattan, Kansas**

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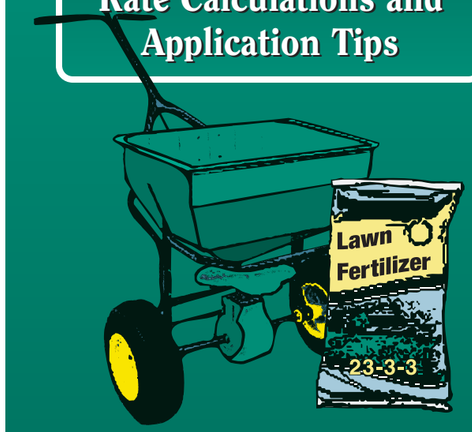
The ROOKIE'S GUIDE to Fertilizing in Douglas County

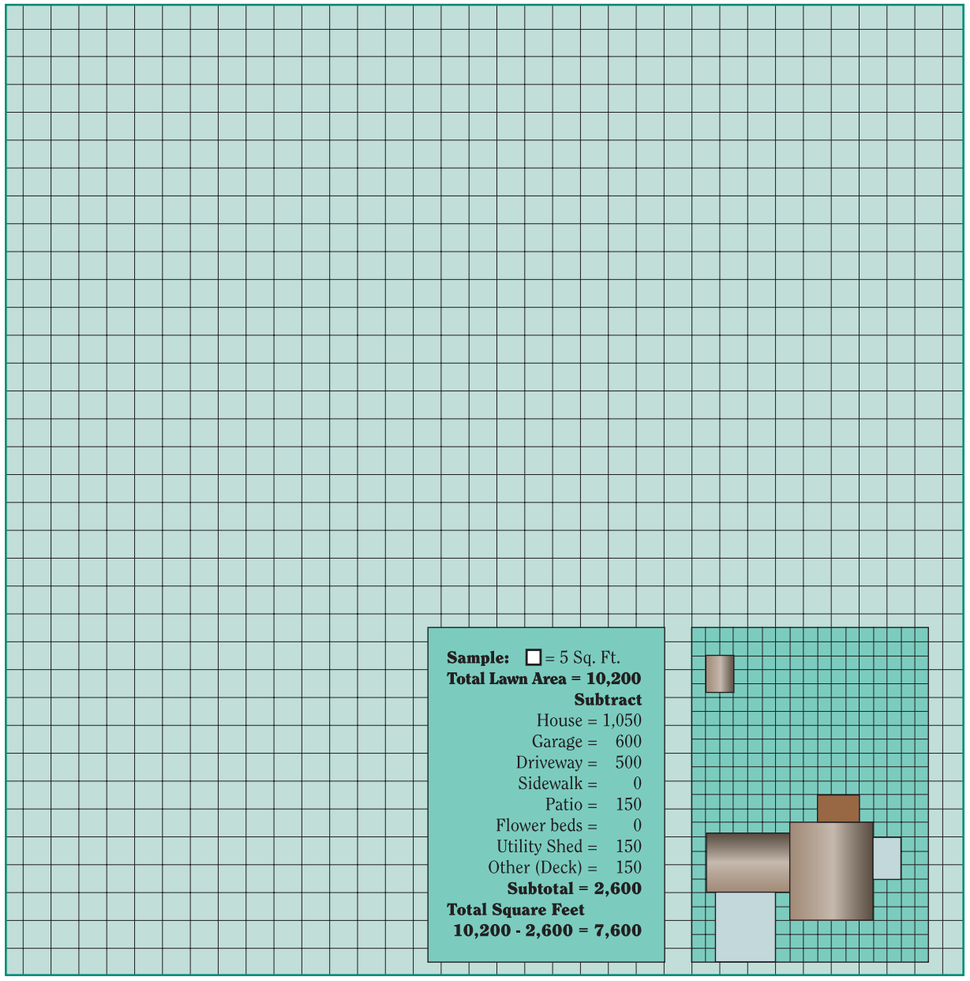
Rate Calculations and Application Tips



Kansas State University Agricultural Experiment Station
and Cooperative Extension Service

Step 1

Determine the square footage of the area to be fertilized. The size of the area is calculated by multiplying the length times the width then subtract the area for the house, drive, patio, and other nonfertilized areas. Use the area below to calculate square footage.



Step 2

Do the math:

Length x Width = Square feet

_____ x _____ = _____

Subtract area of:

House/Garage _____
Driveway/Sidewalk _____
Patio _____
Flower Beds _____
Utility Shed _____
Other _____

Total Area to be fertilized: _____

Step 3

The secret to healthy lawns is purchasing and applying the correct amount of fertilizer. Use the *"Lawn Fertilizer Table"* to calculate the amount of fertilizer to apply on your lawn. This calculated amount is equivalent to one pound of actual nitrogen per 1,000 square feet — as recommended by K-State Research and Extension.

The numbers across the top indicate the percent of nitrogen in the fertilizer you are using. This is the first numeral of the three-number ratio displayed on the bag (eg. 23–3–3.) *(Remember, a soil test though our county extension office will assist in selecting the proper nutrient ratio for your lawn.)* The numbers down the left column indicate the total area to be fertilized in square feet. *(See Step 1 for instructions.)* The numbers within the chart equal the pounds of fertilizer needed. It's simple! Applying less may inadequately feed your lawn. Applying more fertilizer than recommended will waste your money and may pollute the environment.

Lawn Fertilizer Table

	Nitrogen Content of Fertilizer Product																		
Sq. Ft.	5	7	9	10	12	13	15	17	19	21	23	25	27	29	32	33	35	37	39
1,000	20	14	11	10	8	8	7	6	5	5	4	4	4	3	3	3	3	3	3
2,000	40	29	22	18	17	15	13	12	11	10	9	8	7	7	6	6	6	5	5
3,000	60	43	33	27	25	23	20	18	16	14	13	12	11	10	9	9	9	8	8
4,000	80	57	44	36	33	31	27	24	21	19	17	16	15	14	13	12	11	11	10
5,000	100	71	56	45	42	38	33	29	26	24	22	20	19	17	16	15	14	14	13
6,000	120	86	67	55	50	46	40	35	32	29	26	24	22	21	19	18	17	16	15
7,000	140	100	78	64	58	54	47	41	37	33	30	28	26	24	22	21	20	19	18
8,000	160	114	89	73	67	62	53	47	42	38	35	32	30	28	25	24	23	22	21
9,000	180	129	100	82	75	69	60	53	47	43	39	36	33	31	28	27	26	24	23
10,000	200	143	111	91	83	77	67	59	53	48	43	40	37	34	31	30	29	27	26
11,000	220	157	122	100	92	85	73	65	58	52	48	44	41	38	34	33	31	30	28
12,000	240	171	133	109	100	92	80	71	63	57	52	48	44	41	38	36	34	32	31
13,000	260	186	144	118	108	100	87	76	68	62	57	52	48	45	41	39	37	35	33
14,000	280	200	156	127	117	108	93	82	74	67	61	56	52	48	44	42	40	38	36
15,000	300	214	167	136	125	115	100	88	79	71	65	60	56	52	47	45	43	41	38
16,000	320	229	178	145	133	123	107	94	84	76	70	64	59	55	50	48	46	43	41
17,000	340	243	189	155	142	131	113	100	89	81	74	68	63	59	53	52	49	46	44
18,000	360	257	200	164	150	138	120	106	95	86	78	72	67	62	56	55	51	49	46
19,000	380	271	211	173	158	146	127	112	100	90	83	76	70	66	59	58	54	51	49
20,000	400	286	222	182	167	154	133	118	105	95	87	80	74	69	63	61	57	54	51