## SOIL ADAPTATIONS OF THE MORE IMPORTANT TURF GRASSES

Good grass turf is conditioned by two important factors, climate and soil. The latter can be modified but the former must be accepted as it is. Since our climate cannot be greatly changed to suit the grasses, the only practical thing to do is to make the soil conditions as nearly ideal as possible. It is a well-established principle of plant culture that the more unfavorable the climatic conditions are, the more favorable must all other conditions be to insure success, and grass is no exception to this rule. In the accompanying table are given the soil adaptations of the more important turf grasses.

| Name  | Time Required<br>to Produce Turf                  | Moisture   | Texture   | Minimum<br>Fertility                       | Optimum<br>pH | Uses   | Remarks  |
|---|---|--|---|--|---------------|--|--|
| Red Top   | One<br>Season                                     | Moist or<br>Dry Soils  | Clay loam<br>or loam                                    | Tolerates<br>poor soils                    | 5.5-6.5       | Nurse or Tem-<br>porary Grass in<br>fairways, greens,<br>lawns | Sods by short creeping stems<br>makes a quick temporary turf<br>lasts only 1-2 years when kep<br>closely mowed.  |
| Colonial Bent<br>Rhode Island<br>Bent<br>Astoria Bent | One<br>Season                                     | Well drained<br>moist soils                                  | Loams or<br>sandy loams<br>if well<br>drained           | Moderately<br>fertile                      | 5.5-6.5       | Greens,<br>fairways,<br>lawns                                  | Sods slowly by stolons, produce<br>a fine turf.  |
| Creeping Bent<br>Seaside Bent                         | 1 season<br>from seed,<br>2 months<br>from stolon | Well drained<br>moist soils                                  | Loams   | Moderately<br>fertile<br>soil              | 5.5-6.5       | Greens,<br>fairways  | Sods rapidly by stolons; make<br>dense fine turf; injuries hea<br>quickly; difficult to maintain   |
| Velvet Bent   | One<br>Season                                     | Well drained<br>moist soils or<br>moderately<br>dry soils    | Loams to<br>sandy loams                                 | Moderately<br>fertile<br>soil              | 5.5-6.5       | Greens,<br>lawns   | Sods slowly by creeping stems<br>seed supply limited; ideal for<br>putting greens.   |
| Kentucky Blue   | Two<br>Seasons                                    | Well drained<br>moist soils :<br>not adapted<br>to dry soils | Clay loam<br>and loam                                   | Medium to<br>good soils                    | 6.0-8.0       | Fairways,<br>lawns   | Sods slowly by short under<br>ground stems; not resistant<br>to drought but recovers quick-<br>ly. Makes a good sod on fer<br>tile soil.                   |
| Canada Blue   | Two<br>Seasons                                    | Tolerant of<br>dry soils                                     | Clay, sand<br>or shale                                  | Tolerates<br>very poor<br>soils            | 5.0-8.0       | Fairways<br>rough  | Forms open coarse sod by un-<br>derground stems; resistant to<br>summer heat and drought<br>makes poor appearance.   |
| Rough-stalked<br>Meadow Grass<br>(Poa trivialis)      | Two<br>Seasons                                    | Moist, well-<br>drained soils                                | Clay loam<br>and loams                                  | Medium to<br>good soils                    | 6.0-8.0       | Fairways,<br>lawns   | Sods slowly by underground<br>stems; produces good turf in<br>damp, shady locations; not re-<br>sistant to drought or heat.                                |
| Poa annua   | One<br>Season                                     | Moist, well-<br>drained soils                                | Loams and<br>clay loams                                 | Thrives<br>where bents<br>will not<br>grow | 5.0–7.0       | Greens,<br>fairways,<br>lawns                                  | Forms dense sod; creeps spar-<br>ingly; thrives in shady areas;<br>seeds and dies in mid-sum-<br>mer; thrives in cool moist<br>weather of spring and fall. |
| Chewing's Red<br>Fescue                               | One<br>Season                                     | Moist, well-<br>drained soils,<br>tolerant of<br>dry soils   | Sandy loams<br>but tolerates<br>clay loams<br>and clays | Tolerates<br>infertile<br>soils            | 5.0-6.5       | Greens,<br>fairways,<br>lawns                                  | Grows in open and shade,<br>creeps slowly, very durable<br>turf, uniform sod when es-<br>tablished.  |
| Sheeps Fescue   | One<br>Season                                     | Tolerant of<br>dry soils                                     | 17  | "  | 5.0-6.5       | Rough  | Bunch forming habit of growth,<br>makes poor appearing turf.   |
| Hard Fescue,<br>(European Red<br>Fescue)              | One<br>Season                                     | Tolerant of<br>dry soils                                     | 19  |  | 5.0-6.5       | Rough  | Bunch forming habit of growth,<br>makes poor appearing turf.   |
| Fine-Leafed<br>Fescue                                 | One<br>Season                                     | Tolerant of<br>dry soils                                     |   | "  | 5.0-6.5       | Lawns  | Bunch forming habit of growth,<br>thrives in shady areas.  |