Treeless grassland predominate the temperate regions & it comprises about 24% of the world vegetation.

The temperate forages is classified into

- Temperate grasses
- Temperate legumes

1. Temperate grasses:
   - Most of the grasses found in temperate region belongs to festucoid (Poaoid) group.
   - Growth of temperate grasses start at the onset of spring season varying from April to June depending upon the altitude.
   - Their growth rate vary from zero in winter to the full genetic potential in spring.
   - Example. Crested wheat grass, Intermediate wheat grass, Drooping wheat grass, Common bent grass, Meadow fox-tail grass, false oat grass, false brome grass, rescue grass, smooth brome grass, bush grass, rice grass, Timothy grass, muhly grass, perennial rye grass etc.

Some important temperate grasses are

*Agropyron intermedium* (Intermediate wheat grass)
- A long lived rhizomatous turf forming temperate perennial grass native of Europe & Asia.
- Adapted to temperate dry region having <500mm annual rain fall & requires well drained and good soil.
- Starts growth in spring & provides palatable herbage till early flowering stage.
- Yield 4-6t DM/ha in 3-4 cuttings.
- It is less drought & frost resistant than crested wheat grass, but stays green longer.
- Suitable for planting in dry temperate regions of Himalayas.
- Superior varieties: Slate, Ree, Amur, Chief, Clarke, Tegmar etc.

*Alopecurus pratensis* (Meadow fox-tail grass)
- Along-lived, tufted perennial temperate grass native of Europe & Asia.
- Adapted to cool, moist temperate climates, very resistant to cold & also withstands high summer temperature.
- Grows best on deep, moist, fertile soils
- Grows well under shade too.
- Yield 5-6t DM/ha in 3-4 cuttings.

*Bromus catharticus* (Rescue grass or prairie grass)
- A tufted, short lived, perennial grass native of South America.
- Adapted to a wide range of soils in temperate & sub-temperate regions.
- A good pasture grass in the subtropical winter rainfall region during the cool season, & in tropical highlands.
• Yield 5-6tDM/ha.
• Satisfactory quality of herbage with 4.1 to 4.3% D.C.P (digestible crude protein) & highly palatable.
• Superior varieties: lamont, nakuru, chapelhill, grassland matua etc…

*Calamagostis epigejos* (bushgrass or small reed)
• A tuft or tussock forming temperate perennial grass, native of asia & Europe.
• A coarse grass of open places found in dry habitats such as sandy shores, rocky slopes or on heavy clay soil.
• Herbage is not considered to be very palatable but is grazed by hill cattle, sheep & goats.
• Yield 4-5t/ha/yr.

*Pennisetum flaccidum* (pennisetum grass)
• A tufted perennial grass of temperate & alpine region, having creeping rootstock.
• It is common in higher alpine slope areas in Himalayas grazed by sheep & goats & is considered as good fodder.
• DM of 3-4t/ha/yr.

*Phleum pratense* (Timothy grass)
• It is shallow rooting growing best on moist heavy soils.
• Adapted to cool, humid climates.
• Available for hay making as it is not so regenerative.
• High palatability with DM of 3.2 to 6.9t/ha & crude protein of 7.2 to 14.5%.
• Superior varieties: kamot, bounty, pecora, champs, Aberystwyth S 352, S 48, etc…

2. Temperate legumes:
• In general, temperate legumes are frost resistant & low temperature damages their foliage donot.
• They are generally long day plants.
• Legumes of temperate region in general, are more specific in their Rhizobium requirements than tropical species.
• Example: Cicer milk vetch, crown vetch, birds foot trefoil, Lucerne, sweet clover white flowered, yellow flowered, sainfoin, honey clover, straw-berry clover, crimson clover, red clover etc…

Some important temperate legumes are seen below

*Medicago sativa* (Lucerne or alfalfa)
• Already discussed above

*Coronilla varia* (crown vetch)
• A long-lived, deep rooted, frost & drought tolerant, herbaceous perennial legume native of Asia.
• New shoots arise from creeping rootstock or underground rhizomes.
• Yield 3-4t/ha & it’s regeneration is slower than alfalfa.
• Best suited to permeable, well drained calcareous soil.
• It’s digestibility is higher than Lucerne & it’s seed production in crown vetch is 100kg/ha.
• Superior varieties: penngift, Emerald, chmungetc.....

*Trifolium ambiguum* (Honey clover)
- A drought tolerant temperate legume found in temperate & alpine regions of western Himalayas & near east center of origin.
- Has deep, strong & dense mat of roots & rhizome making it for erosion control.
- It is winter hardy, persistent & resistant to drought & pests.
- It is better adapted to humid region & forage is palatable to cattle.
- Yield: 3-4t/ha/yr.
- Superior varieties: Frostline, Summit.

*Trifolium incarnatum* (crimson clover)
- It’s annual in growth habit & well adapted to temperate region of the world.
- It is grown as important pasture & soil improvement crop.
- Herbage dry matter yield varies from 3 to 4t/ha/yr
- Varieties: Auburn, Dixie, chief, Talledaga etc.