



Registration of "Sultan 1919" Red Clover (*Trifolium pratense* L.) Variety

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Sultan 1919 (*Trifolium pratense* L.) is short-lived perennial forage legume developed and registered by the Black Sea Agricultural Research Institute in 2019. In addition to being used primarily as a pasture crop for animal feeding, it is also used as green manure for increasing soil fertility and soil improvement due to its nitrogen fixation character. Sultan 1919 is developed through within-half sibling family selection as a medium-late flowering and diploid variety during 2016-2019 growing seasons. Sultan 1919 (*Trifolium pratense* L.) is a high quality cool season forage plant with an average plant height of 86.9 cm, green stem and leaf color with purple flowers.

It is a mid-late, diploid variety that can be taken in 3 cuttings under suitable precipitation, climate and soil conditions. The plant can give an average of 68820 kg/ha⁻¹ of green herbage yield and 17420 kg/ha⁻¹ of dry herbage yield in different climatic and regional conditions. The average physiological maturity period in the use of the plant as silage, grass and hay is 200-220 days; for the use of seeds, it was determined that it reached harvest maturity between 230-250 days on average.

The average 1000-seed weight is 2 g. The planting and harvesting of the variety is suitable for machine farming. Appropriate sowing time is recommended from

October 15-November 15 in places with mild winters, and after late spring frosts in places with harsh winters. Although sowing with seeder is preferred, sowing can be done with broadcasting or seeder. Sowing depth is 1-2 cm, suitable row spacing for sowing with seeder is 20-40 cm, the amount of seed to be sown is 500-750 g per decare. Depending on factors such as climate, soil conditions, irrigation status, yield per unit area, 2.5-3.0 kg N should be given per decare by sowing, and 15-20 kg of P₂O₅ every 2-3 years. Although our soils are generally considered sufficient in terms of potassium, potassium fertilization must be applied to sandy and poor soils. According to the results of soil analysis, if the available amounts of macro and micro nutrients in the soil do not meet the needs of pasture clover, this deficiency must be eliminated in order to obtain high yields. In addition, if the soil pH is low (pH<6.5), the pH should be increased to the appropriate level by liming.

As a results of the quality analyses of hay samples taken from the plant, crude protein rate is 21.48%, crude fiber is 26.24%, dry matter is 92.09%, crude oil is 1.81%, NDF 46.28%, ADF 39.39% and RFV 117.

Although it depends on the environmental conditions in which it grows, rust and powdery mildew disease are generally seen in Sultan 1919.



Figure 1. (a) Flower (b) Plant (c) Seeds of *T. pratense*. (Original)

References and Notes

Anonymous, 2019. Tarla Bitkileri Tescil Komite Toplantilari <https://www.tarimorman.gov.tr/BUGEM/TTSM/Duyuru226/2019-Nisan-Ayi-Tarla-Bitkileri-Tescil-Komite-Toplantilari>. (in Turkish)