Range Mgmt. & Agroforestry 42 (1) : 125-130, 2021
ISSN 0971-2070

Effect of seed rates of berseem and ryegrass on yield and quality of fodder in mixed cropping

Magan Singh*, Hardev Ram, R. K Meena, Uttam Kumar, V. K. Meena, Santosh Onte, Sourabh Kumar and Susanta Dutta
ICAR-National Dairy Research Institute, Karnal-132001, India
*Corresponding author e-mail: magansingh07@gmail.com
Received: 27th April, 2020 Accepted: 3rd April, 2021

Abstract
A field experiment was carried out during 2015-16 and 2016-17 in *Rabi* season at ICAR-National Dairy Research Institute, Karnal, Haryana in randomized block design (RBD). The aim of this study was to evaluate and optimize the seed rates of berseem (Ber) and ryegrass (RG) as mixed crops for forage yield and quality. The study consisted of 10 treatments *viz.,* T_1: sole berseem (seed rate @ 25 kg/ha), T_2: sole ryegrass (seed rate @ 8 kg/ha), T_3: mixed crops with 100% seed rate (Ber+RG), T_4: mixed crops with 50% seed rate (Ber+RG), T_5: with 100% + 25%, (Ber+RG), T_6: 75% + 25% (Ber+RG), T_7: with 50% + 25% (Ber+RG), T_8: with 100% + 25% (RG+Ber), T_9: with 75% + 25% (RG+Ber) and T_{10}: with 50% + 25% (RG+Ber) with three replications in 30 number of plots. It was observed that seed rate of 25% berseem with 100% ryegrass grown as mixed crop recorded higher green fodder yield (112.58 t/ha) and dry matter yield (17.45 t/ha) over all treatments. Highest benefit: cost ratio was worked out in sole berseem followed by 25% of berseem with 100% ryegrass and 100% berseem with 25% ryegrass. Maximum N uptake was recorded by sole berseem (541.2 kg/ha) followed by mixture of 100% berseem with 25% rye grass (521.9 kg/ha).

Keywords: Berseem, Fodder quality, Growth, N-uptake, Ryegrass, Seed rates