DEDICATION

To my father, mother and my husband

To my sisters and brothers

To my friends and colleagues

With my respect

EZDHAR

ACKOWLEDGEMENTS

First of all, praise to Allah for giving me health and patience to complete this work. Also, I would like to express my deep gratitude and sincere thanks to Dr Atif Elsadig Idris for his guidance, supervision,and great effort he has paid during this study.

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ABSTRACT

The experiment was conducted at the Experimental farm, college of Agricultural studies, Sudan University of Science and Technology, Shambat. Five ratios of intercropping between Rhodes grass and Clitoria were used in this study.

The experiment was laid out in a randomized complete block design (RCBD) with three replications. Seven different characters were measured for consequence cuts. These characters were plant height (cm), leaf area (cm^2), number of leaves/ plant, leaf to srem ratio, fresh forage yield t\ha, dry forage yield t\ha and crude protein for the third cut. The analysis of variance revealed non-significant difference between the four studied ratios for the three cuts for all growth, quality and yield (fresh and dry) except the dry forage yield of the second cut, it was significant ($P \leq 0.05$). For fresh and dry forage yield in all the three cuts for five treatments, the range of the forage yield was 46.83 to 62.66 t\ha for fresh yield and 6.11 to 7.3 t\ha for dry yield. The range of crude protein was 12.25 to17.50 for the third cut.

الخلاصة

تم اجراء هذه التجربة بالمزرعة التجريبية بكلية الدراسات الزراعية، جامعة السودان للعلوم والتكنولوجيا (شمبات). تم إستخدام خمس نسب من الزراعة المختلطة بين حشيشة الرودس وعلف الكلايتوريا تم إجراء التجربة بإستخدام تصميم القطاعات الكاملة العشوائية بثلاثة مكررات تم قياس سبعة صفات مختلفة لثلاث قطعات متتابعة والصفات هى طول النبات/سم، مساحة الورقة/سم٢، عدد الأوراق فى النبات،نسبة الأوراق إلى الساق، الإنتاجية للعلف الاخضر بالطن/هكتار، الإنتاجية الجافة للعلف بالطن/هكتار ونسبة البروتين الخام للقطعة الثالثة. أظهر تحليل التباين عدم وجود فروقات معنوية للنسب الخمسة من الزراعة المختلطة لكل صفات النمو والنوعيه والانتاجيه للعلف الاخضر والجاف للثلاثة قطعات فى ماعدا القطعه الثانية للانتاجيه العلف الجاف فقد ظهرت بها فروقات معنويه ($P\leq0.05$) كان المدى للمجموع الكلى للانتاجية العلف من ٤٦.٨٣- ٦٢.٦٦ بالطن هكتار للعلف الاخضر ومن ٦.١١-٧.٣ بالطن هكتار للعلف الجاف. وكان المدى للبروتين الخام فى القطعة الثالثة من ١٢.٢٥-١٧.٥٠ .