

بسم الله الرحمن الرحيم

**SUDAN UNIVERSITY OF SCIENCE AND
TECHNOLOGY**

**Appropriate Method for Agricultural Tractors and
Implements Selection, Repair and Maintenance**

الطريقة المثلى لاختيار الجرارات والآلات الزراعية إصلاحها
وصيانتها

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DEDICATION

To the Soul of My Father, El Shiekh Abd Elgadir,

To My Mother Amna,

To My Wife Ikhlas,

To My Son Musab ,

To My Daughters: Eeithar, Abrar, and Ayah.

I dedicate this work.

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First of all, I am grateful to Allah, for providing me the health and strength to complete this work

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الخلاصة

تختص هذه الدراسة بمسح ميداني كامل بهدف جمع المعلومات الخاصة با
لجارات والآلات والمعدات في منطقتي القصارف والجزيرة . ل قد أعطى اعتبار خاص
ل طرق امتلاكها المختلفة وطرق التشغيل والصيانة .
ل قد استخدم برنامج SPSS للحاسبات الآلية و الذي اظهر المعلومات الآتية:

أن الغالبية العظمى من الجرارات والآلات الزراعية تم امتلاكها بواسطة تعا قد مع البنك الزراعي السوداني ومع ذلك يتم الامتلاك عن طريق الشراء المباشر في بعض الحالات إن الصيانة والإصلاح يتمان في ورش محلية والتي تند قصها الكوادر المدربة و قطع الغيار الأصلية . نسبة للجمارك العالية المفروضة عليها وبالرغم من ذلك فإنها تتعرض للأعمال الحقلية الشاقة وعليه الأعطال المتكررة.

ل قد أوصت هذه الدراسة أهمية تطبيق الطرق المتبعة بواسطة إدارة الهندسة الزراعية بوزارة الزراعة و الغابات الاتحادية والتي تتم بالمواصفات القياسية في شراء وتشغيل وإصلاح الجرارات , الآلات والمعدات في إبقائها بحالة جيدة مع توفير قطع الغيار الأصلية والورش المتحركة والكوادر المؤهلة من الميكانيكيين وإتباع برنامج صيانة وإصلاح مجدول مسبقاً .

ABSTRACT

This study is concerned with thorough field surveys with the objective of collecting data regarding agricultural tractor, machinery and equipment in Gedarif and Gezira areas; special consideration has been given to the various ways of possessing them (ownership) and methods of operation and maintenance

Applying an SPSS computer program has revealed the following information, the majority of them are owned through contracts with the Agricultural Bank of Sudan, however, in few cases through direct purchasing

Repairs and maintenance are done in local workshops which lack both skillfull mechanics and genuine spare parts, due to high taxes put on them, in spite of this they continuously subjected to heavy field duties hence successive breakdowns

The study recommends the importance of implementing the procedures followed by the Agricultural Engineering Administration of the Federal ministry of Agriculture and Forestry as abided by standard specifications in purchasing, operating and maintaining the tractors, machinery and equipment in the appropriate conditions while availing genuine spare parts, mobile work shops, staffed with competent mechanics and following prescheduled operation and maintenance program.