

# **Dedications**

To my father and soul of my mother

To my wife and sons

To my brothers and dearest friends

To my colleagues

Mohammed Ibrahim

# **Acknowledgement**

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### **Abstract**

This study conducted in Enhod locality in North Kordofan State, Sudan. The soil in the Northern part is described as sandy while loamy at South-east part. The study covered millet, Sorghum, hibiscus species, watermelon, sesame, and groundnut. However, groundnut was carefully studied as cash crop, the main objective is to assess and calculate the economical effect of groundnuts on farmer's income in Enhod locality for

period from 1999-2008. While other secondary objectives are; to evaluate the effect of crop on human life and animal feed, to evaluate employment opportunities for annual laborers, to study socioeconomic characteristics of groundnut producers and to identify the effect of crop price on the groundnut cultivated area and finally to identify the constraints of groundnut production. To fulfill the study objectives, the primary data was collected through field survey by selecting ten villages, and ten respondents from each village. The personal interview method was adopted by using a questionnaire designed to glean information to satisfy the set objectives. The secondary data was collected from present studies, Books, reports, related administrations in Enhod, the Ministry of Agriculture and Forestry and Bank of Sudan statistics department. Budgeting was used for analyzing feddan net returns and ultimately net returns from groundnut cultivation and coefficient of profitability also used to calculate groundnut profitability. Break-even was used to measure the price and productivity and ultimately the farmer's gain.

The descriptive statistics and tabulation were used to analyze socioeconomic characteristics of groundnut producers and regression analysis also used to estimate the relationship between groundnuts cultivated area and its price which gave significance only in the year 2008. Both the relationship between groundnut production and cultivated area, and the relationship between groundnut production and its price and cultivated area gave high significance.

It is found that in period 2004-2008 the groundnut cultivation was profitable and also increased farmer's assets and provided employment for manual laborers. Moreover the crop returns participated in education and health care services and other family expenses.

It is evident that the groundnut production constraints were shortage and uneven distribution of rainfall, unavailability of credit and

extension services, pests' infestation. Moreover the problem of drinking water, especially during sowing and harvesting period. The study recommended that the groundnut producers should be provided with credit and crop services such as improved varieties, training, and access to extension services and chemicals for pest's control.

It is also suggested that, the animal driven ploughs can assist farmers in south-east area with loamy soil in both cultivation and harvesting operations and provision of water in groundnut producing areas is very important. Moreover intercropping system is suggested to be introduced in groundnut cultivation with others cash crops or sorghum and marketing the crop after manufacturing to other products.

## ملخص الدراسة

أجريت هذه الدراسة بإدارية ريفي النهود التابعة لولاية شمال كردفان /السودان. تتصف تربة المنطقة بالرملية الا ان تربة الجزء الجنوبي الشرقي بالقرودية، شملت دراسته محصول الدخن ، الذره، الكركدي، حب البطيخ والسسم، لكنها ركزت علي محصول الفول السوداني كمحصول ن قدي. الهدف الرئيسي للدراسة تقييم الأثر الا قتصادي لزراعة الفول السوداني علي دخل المزارع في الفترة من 2004م وحتى

2008م. أما الأهداف الأخرى شملت دراسة الخصائص الاجتماعية والاقتصادية لمزارعي الفول، التعرف على أثر سعر المحصول على المساحة المزروعة، دراسة استخدام الفول لدى الإنسان وتغذية الحيوان، تقييم أثر الفول على توفير فرص عمل للعمالة اليدوية و التعرف على معوقات إنتاج الفول.

لتدقيق أهداف الدراسة تم جمع البيانات الأولية من خلال مسح ميداني شمل عدد (10) عشرة قري تم اختيارها عشوائياً، ثم تم إختيار عدد عشر مزارعين عشوائياً من كل قرية. وقد أجريت مقابلات شخصية و قد تم بإستخدام استبيان صمم لإستخلاص المعلومات التي تفي بأهداف الدراسة. أما البيانات الثانوية تم جمعها من الدراسات المعاصرة، الكتب، تقارير الإدارات ذات الصلة بالنهوض، وزارة الزراعة الاتحادية والبنك الزراعي قسم الدراسات الإحصائية.

لتحليل البيانات تم إستخدام الميزانية المزرعية لحساب صافي عائد الفدان وصافي عائد المزارع من زراعة الفول السوداني. كما تم إستخدام معامل الربحية لتحديد مستوى الإنتاج وعائدات المزارع. تم إستخدام التحليل الوصفي والجدول للتعرف على الخصائص الاجتماعية والاقتصادية لمزارعي الفول بالإضافة إلي الإنحدار الخطي للتعرف على أثر السعر على المساحة المزروعة من الفول الذي أعطى فرقا معنوياً في الموسم 2008م، أثر المساحة المزروعة على إنتاج الفول أعطى معنوية عالية لكل المواسم، أيضاً أثر السعر والمساحة المزروعة على إنتاج الفول أعطت معنوية عالية.

توصلت الدراسة إلي أن زراعة الفول في الفترة من 2004م وحتى 2008م مربحه. كما أوضحت أن زراعة الفول أدت إلي زيادة أصول المزارع بالإضافة الي توفير فرص عمل للعمالة اليدوية. ونجد أن زراعة الفول ساهمت في دفع نفقات تعليم أفراد الأسرة، علاج الحالات المرضية وبقية النفقات الأخرى.

أظهرت الدراسة أن عقيات إنتاج الفول السوداني ترجع إلي قلة الأمطار وعدم تجانس توزيعها بالإضافة الي ضعف الخدمات الإرشادية والتمويلية، ظهور افات المحصول ومشكلة مياه الشرب في مناطق إنتاج الفول خاصة في مرحلتي الزراعة والحصاد.

أوصت الدراسة بتوفير التمويل والخدمات الزراعية مثل البذور المحسنة، التدريب والخدمات الإرشادية وتوفير المبيدات لمكافحة الآفات. وكذلك أوصت الدراسة بإدخال المحاريت المسحوبة بالحيوان في أراضي الالقرود بالجزء الجنوبي الشرقي لتسهيل عمليتي الزراعة والحصاد. كما أوصت الدراسة بضرورة توفير مياه الشرب في مناطق

إنتاج الفول. أيضا أوصت الدراسة بتحميل الكركدى، السمسم والذره على الفول وتسويق الفول بعد تحويله الى منتجات اخرى.

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