

Changes in cropping pattern in Mahbubnagar villages of Telangana

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Introduction

Cropping pattern is the proportion of total cropped area under different crops at a point of time in a particular geographical area.

Cropping pattern is the key to success for farmers in rural villages who depend on agriculture for their livelihood.

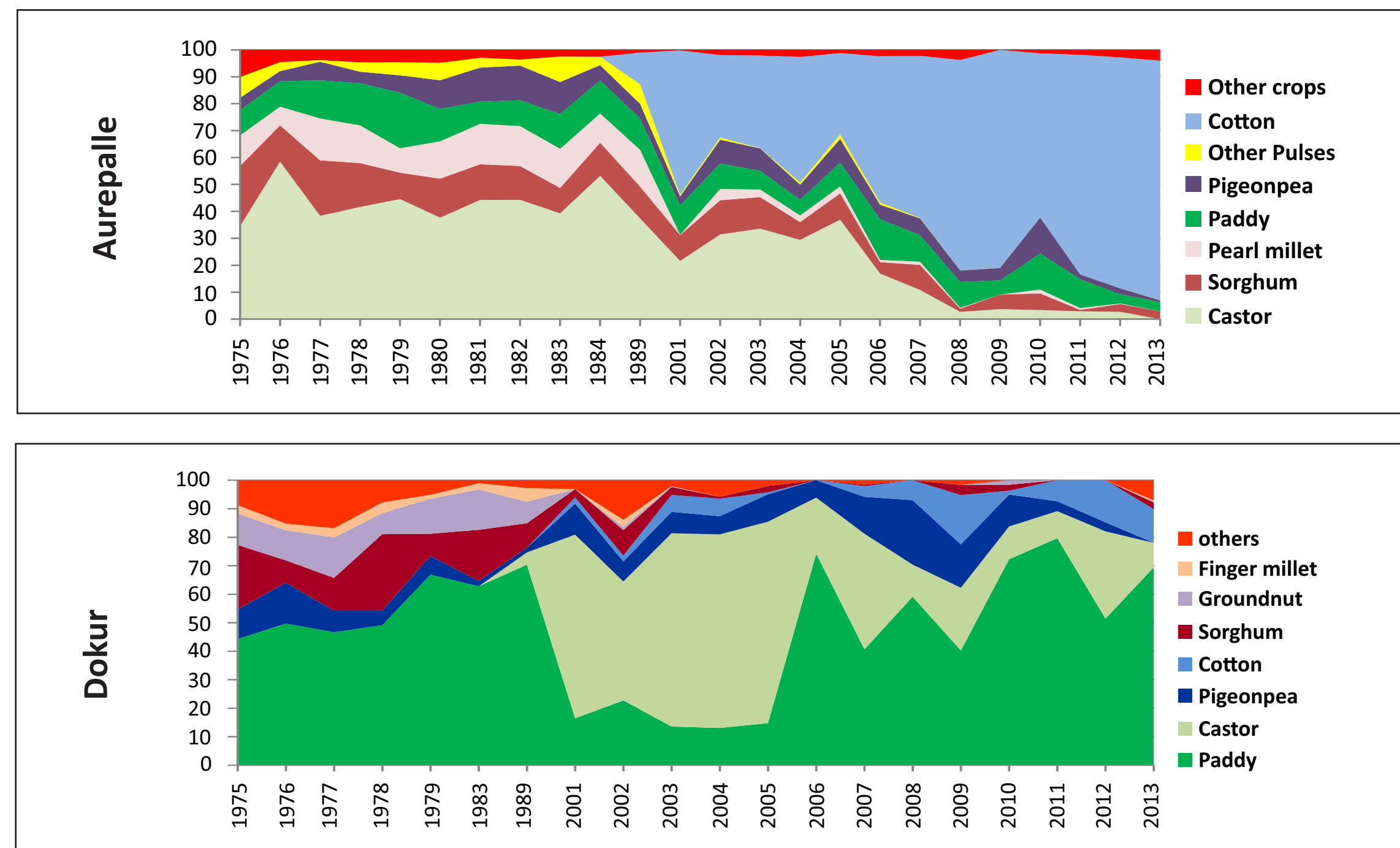
Objectives

- To analyze the changes in the cropping pattern of Aurepalle and Dokur villages of Telangana state during 1975-2013
- To examine the role of productivity, profitability, labor use on the changes in cropping pattern.

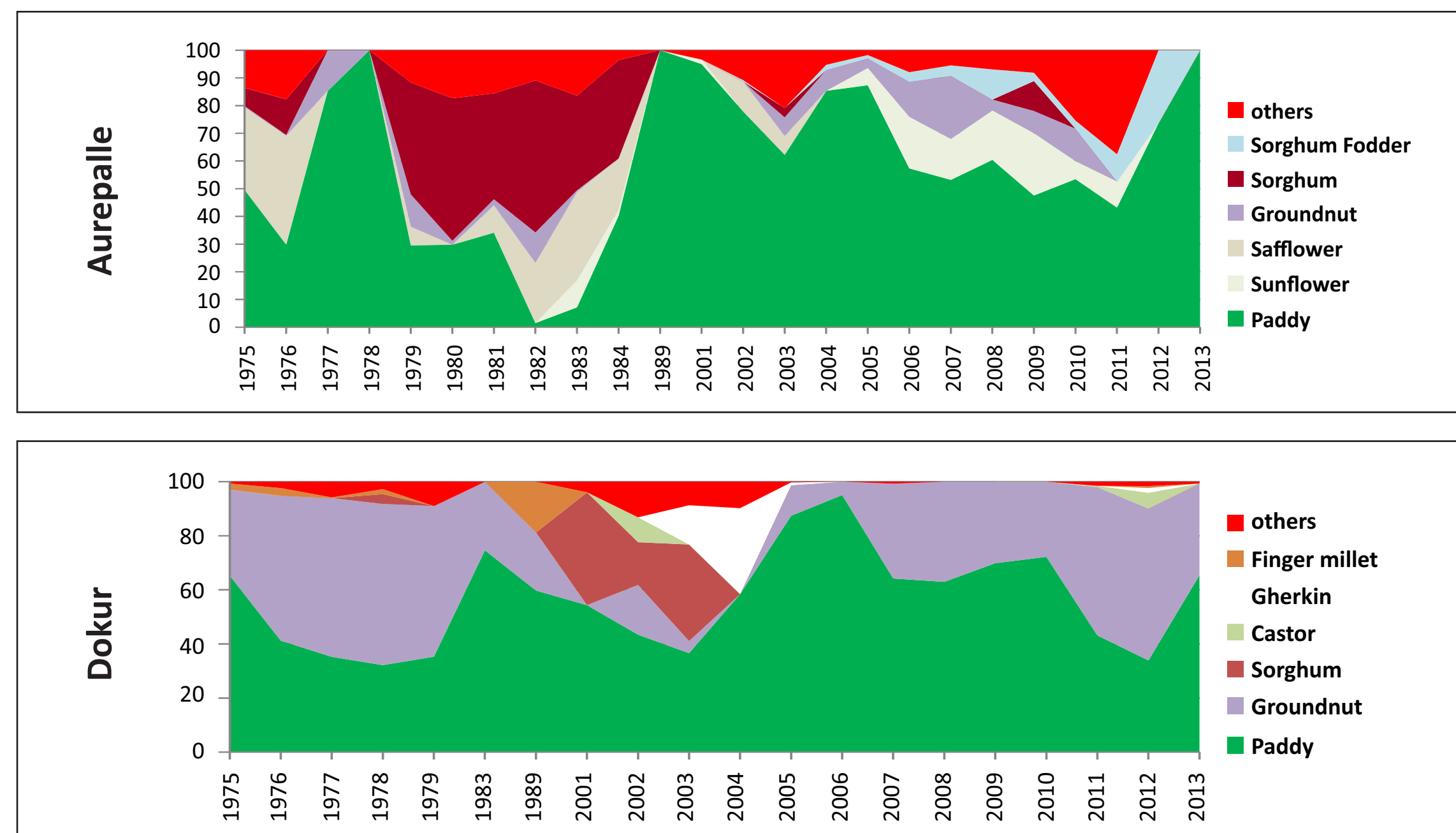
Data

VDSA panel data from 1975-2013 collected from two villages Aurepalle and Dokur of Mahbubnagar district of Telangana state.

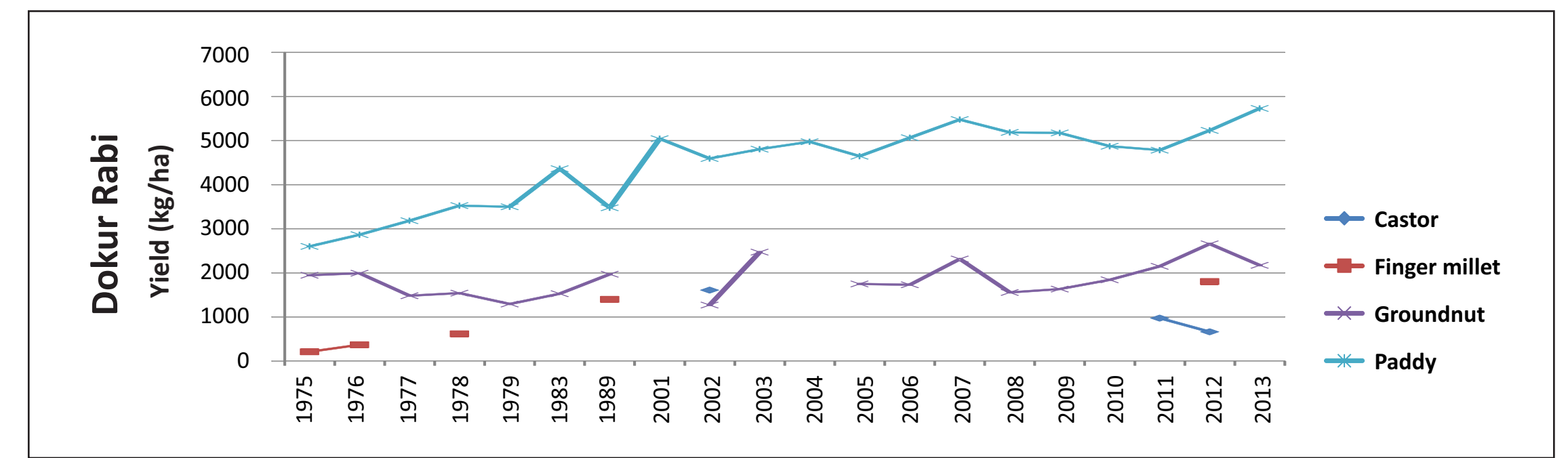
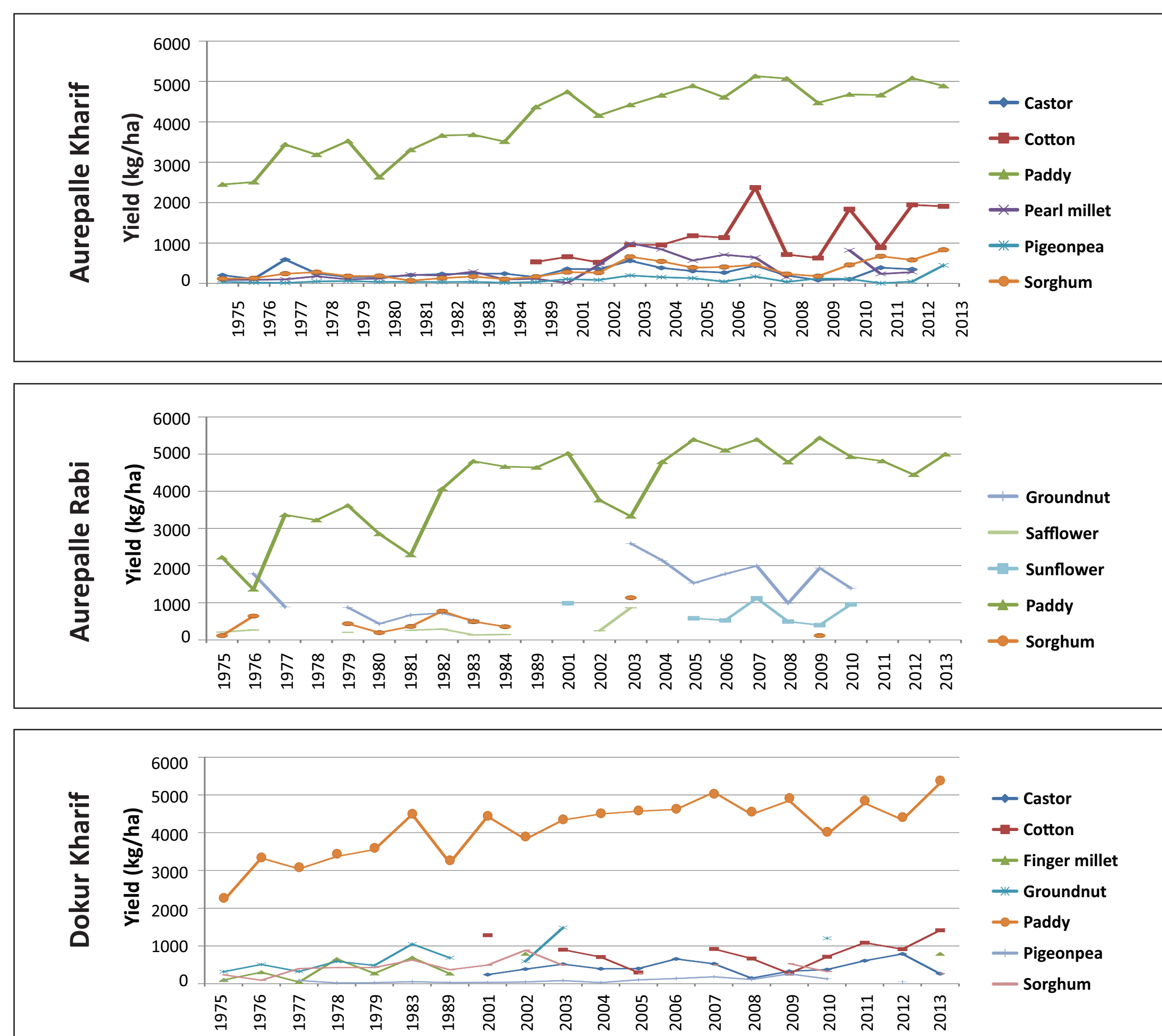
Cropping pattern in Kharif (rainy) season



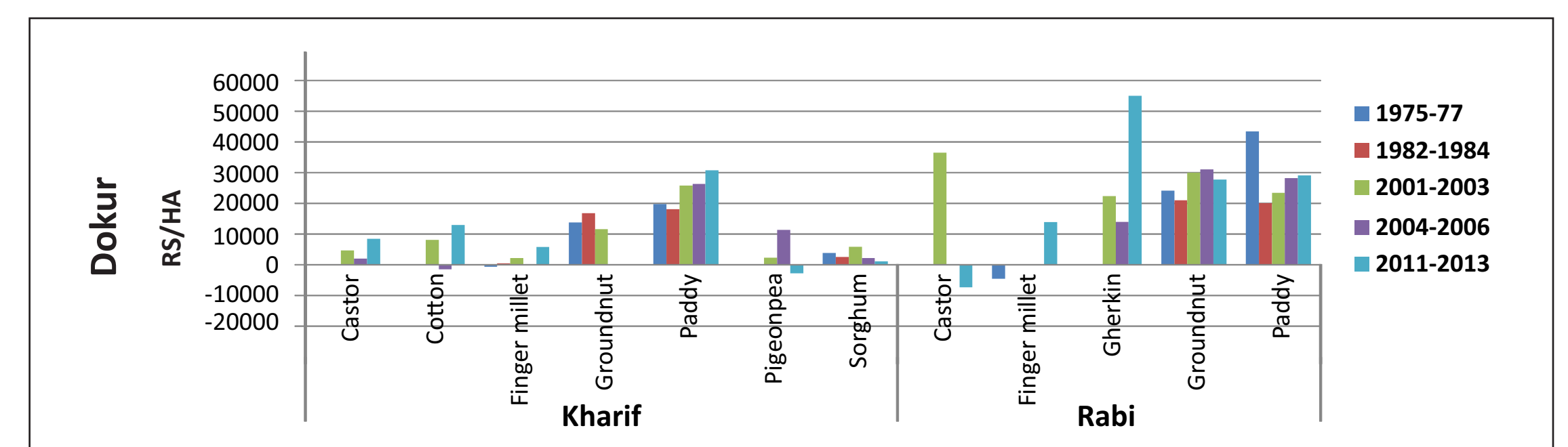
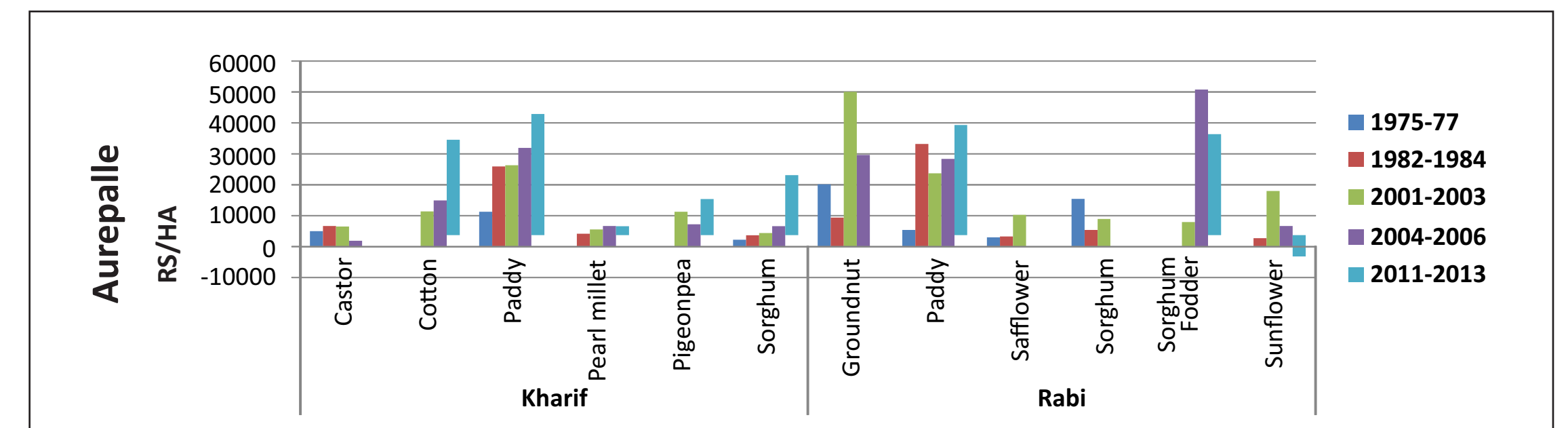
Cropping pattern in Rabi (post-rainy) season



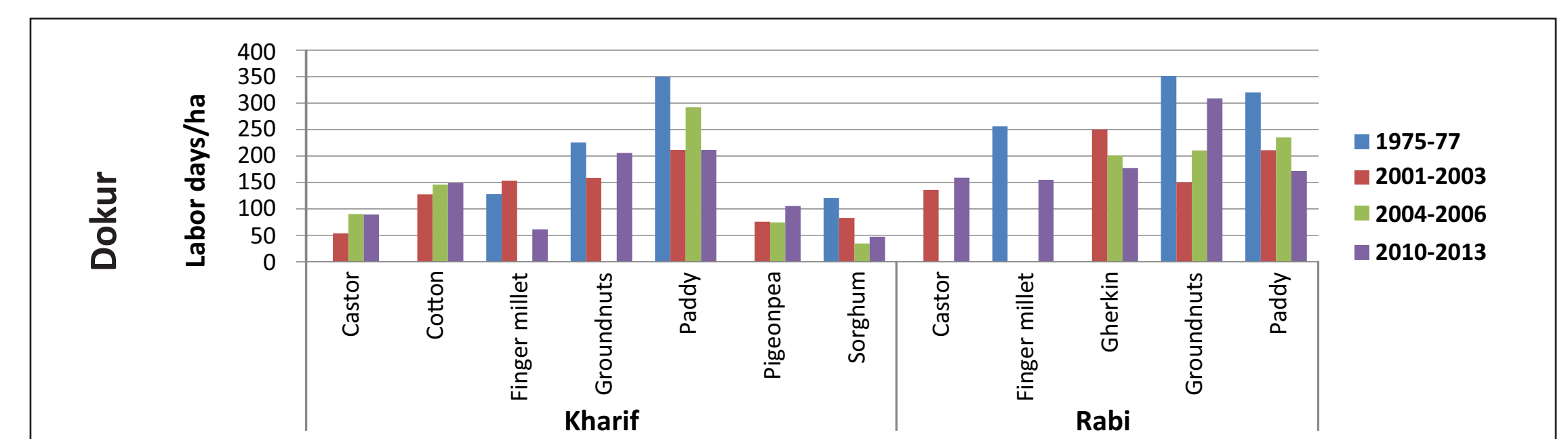
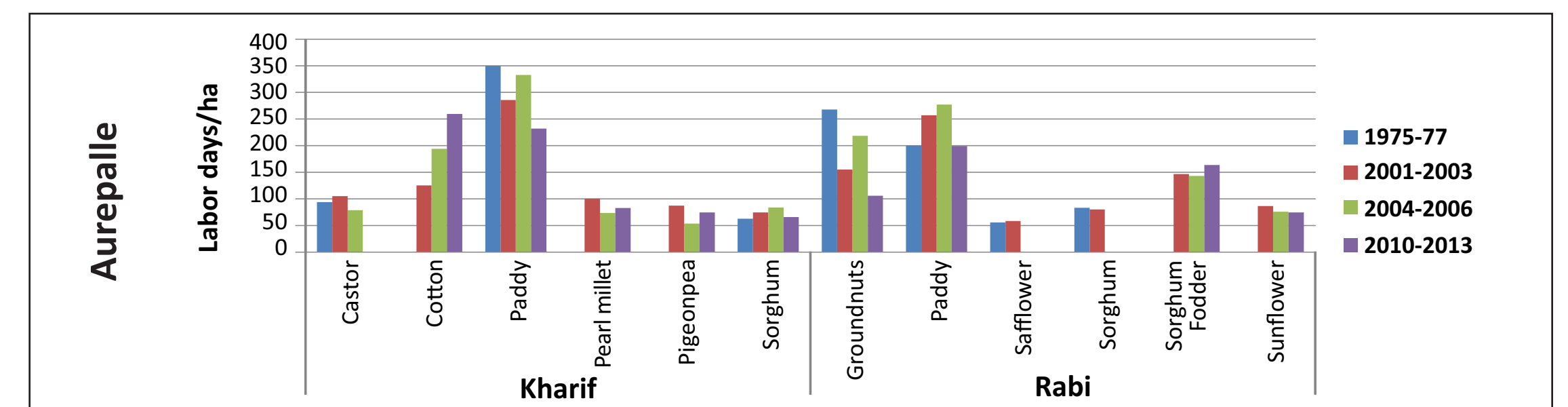
Productivity (kg/ha)



Profitability (Rs/ha) Returns to land, labor and management-Type 1



Labor use (days/ha)



Results

Cropping pattern in Aurepalle

Kharif: BT cotton is the predominant kharif crop in the recent years (89% area in 2013) followed by Paddy (3.4%) and Sorghum (2.9%). In early 2000s, major crops were cotton and castor (each at 34%), sorghum (12%), pigeonpea (8%), paddy (7%) and pearl millet (3%). In the early 1980s (1983), castor was the major crop (39%) followed by pearl millet (15%), paddy (13%), pigeonpea (12%), sorghum (9%) and other pulses (10%). In the mid-1970s, castor was major crop (35%) followed by sorghum (22%), pearl millet (11%), paddy (9%), other pulses (8%), pigeonpea (5%) and other crops (10%).

Rabi: Paddy is the dominant crop, and reaches 100% area in 2013. In early 2000s, major crops were paddy (62%), safflower, groundnut both at 7%, sorghum (3%) and other crops.

In early 80s major crops grown were sorghum (34%) and safflower (32%), followed by sunflower (10%), paddy (7%), and others. In mid 70s major crops were paddy (50%), safflower (30%), sorghum (7%) and others.

Cropping pattern in Dokur

Kharif: The major crops grown in latest year (2013) were paddy (69%) followed by cotton (12%), castor (9%), sorghum (2%) and others. The major crops in early 2000s were castor (42%), paddy (23%), sorghum (9%), pigeonpea (7%), finger millet (3%), cotton (2%), groundnut (1%). Crops grown in early 1980s were paddy (63%), sorghum (18%), groundnut (14%), pigeonpea and finger millet 2% each, and others. During mid 1970s the cropping pattern was paddy (44%), sorghum (23%), groundnut (11%), pigeonpea (10%), finger millet (3%) and others (9%).

Rabi: Paddy (65%) and groundnut (34%) are the dominant crops in latest year 2013, along with some other crops. In early 2000s, paddy (43%), groundnut (18%), sorghum (16%), castor (9%) and other crops were grown. In early 1980s, paddy occupied major share (75%) followed by groundnut (25%). During mid 70s, major crops grown were paddy (65%), groundnut (32%), finger millet (2%) and others.

Drivers of Change

Paddy provides very high returns ₹27,602/ha in (2011-2013 avg). When irrigation water is available in the Rabi season, farmers prefer to grow paddy.

Rapid changes in cropping pattern in the 2000s, particularly shift towards cotton has been driven by the BT cotton technology which has increased profitability substantially higher than other crops. Returns to land, family labor and management from cotton cultivation was ₹17,777 per hectare against ₹8,478 in castor and ₹7,688 for sorghum. Increased profitability was linked with high level of productivity, low water requirement and reasonably good price for cotton. Traders buy cotton from the farmers door.

Implications

Farmers are ready to switch from one crop to another if they know that it will increase farm Productivity and Profitability. Therefore, primary focus of the crop improvement program must be in enhancing productivity and profitability.