

# INDIGENOUS RICE VARIETIES - 2

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The Centre for Indian Knowledge Systems has been involved in revitalising indigenous agriculture for the last eight years. This book on indigenous rice varieties is based upon our own experience of the cultivation of these 47 varieties under field conditions. We have already published a book on 34 indigenous rice varieties which has been received very well by the farming community. We are happy to publish the second volume of the book.

We are thankful to all the farmers who have very generously shared their seeds with us. We gratefully acknowledge the financial assistance received under the UNDP-GEF/CCF-Small Grant Programme for carrying out the field work and also the production of this publication.

We hope that this publication will encourage many farmers to take to indigenous rice conservation.

**Chennai**  
**August 2002**

**K. Vijayalakshmi**  
**Research Director**

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# INTRODUCTION

## Diversity of Rice Crop

The paddy crop originated in India and spread all over Asia. About 96% of paddy grown all over the world is cultivated only in Asia. Paddy can grow even in certain environmental conditions where other crops cannot grow. In India, there are many varieties of paddy which can be cultivated throughout the year. Paddy can grow at an altitude of 7000 feet above sea level. It can also grow at an altitude of 10 feet below sea level. There are paddy varieties which can grow even if the annual rainfall is 500 mm per year. There are also paddy varieties that can withstand 5000 mm of annual rainfall. There are thousands of paddy varieties that are grown widely in India and all over the world.

According to Dr. Richaria the well known rice scientist 4,00,000 varieties of rice existed in India during the Vedic period. He estimates that, even today 2,00,000 varieties of rice exist in India - a truly phenomenal number. Farmers in every part of our country have a deep knowledge of their own rice varieties, of their environmental and nutritional requirements and their properties and peculiarities. Every variety has a specific purpose and utility. Dr. Richaria has collected and identified 20,000 types of rice in the Chattisgarh area of Madhya Pradesh alone.

## Characteristics of Indigenous Rice Varieties

There are many reasons as to why indigenous varieties are still conserved inspite of all odds. High yielding varieties are not suited to all farming conditions and there are situations where indigenous

varieties are better suited. For example, in the alkaline soils of Tamilnadu an indigenous variety of paddy called - "Kalarpalai" alone can be cultivated. Varieties like Vadan Samba are highly drought resistant. Most indigenous varieties are resistant to pests and they are less vulnerable and more hardy. Indigenous varieties require less farm inputs (such as chemical fertilisers and pesticides) and they yield straw which is valuable to farmers as cattle feed as well as roofing material. Many varieties fulfill specific nutritional and other dietary needs. Besides this, indigenous varieties provide the basic genetic material for developing any other variety in future.

### **The Need for Conserving Indigenous Varieties**

Till recent times, our Indian farmers have identified good quality seeds, crossed them to produce several other varieties and have preserved them. Our farmers have now lost their basic capacity of food production due to industrialisation and the influence of multinational seed companies. Agriculture, which was once a way of life, has now become an occupation. The farmers are now like factory workers. Only certain 'hybrid' varieties that have the same genetic constitution are cultivated widely. Indigenous varieties adapted to the local environmental conditions are fast disappearing. The freedom of the farmers has been curbed to a great extent due to the influence of private seed producing companies. Seeds form the basis of agriculture. Diversity of crops is the basis for food security. Cultivation of diverse crops ensures our freedom from starvation, chemical farming and market influence. Hence, conservation of crop diversity is the need of the hour.

### **Farmers Seed banks for Indigenous Paddy Conservation**

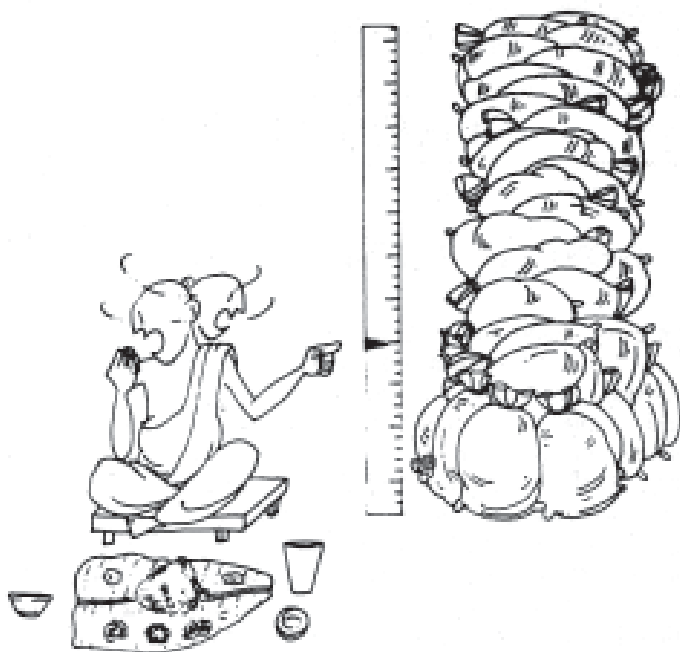
Though indigenous rice varieties are still preserved by a few farmers they are getting depleted at an alarming rate. Several groups across the country are trying to preserve these varieties through on farm conservation. Our centre has been involved in setting up farmers seed banks in villages in different parts of Tamil Nadu. Our field workers have travelled to villages in various parts of Tamil Nadu and have collected these varieties.

Farmers from more than 80 villages of the Kanchipuram district are currently involved in conserving indigenous rice varieties with our assistance. In addition these rice varieties are also grown in our experimental farm. We have been compiling detailed information for each rice variety at different stages of growth of the crop. This compilation is done both in our experimental farm and also in farmers' fields. In this book information regarding 47 indigenous rice varieties have been given. The first volume provided information on 34 indigenous rice varieties.

We request those farmers who require seeds to get in touch with us. We also request farmers who are cultivating any of the indigenous varieties mentioned in this book or other such varieties to share their experiences with us. We seek your cooperation to conserve indigenous agriculture and crop diversity. We hope that this book will help those interested in cultivating and conserving indigenous rice varieties.

### DIVERSITY OF PADDY CROP

According to late Dr. Richaria the well known rice scientist, even today 2,00,000 varieties of rice exist in India. This means that even if a person were to eat a new rice variety every day of the year he would live for over five hundred years without reusing a variety.



## INDIGENOUS RICE VARIETIES

This book provides detailed information on 47 indigenous rice varieties. For each variety the cultivation details, agronomical features, characteristics of the earhead and the grains, yield of grain and straw are given. It also provides information on certain special features of the variety. All the information provided in this book is based upon our own experience of the cultivation of these varieties under field conditions. The information provided for each variety is based on cultivating this variety by the transplantation method. However, if a variety can be cultivated only by dry sowing or wet sowing method information provided is based on that particular cultivation method.

### Seasons

1. **Sornavari** : April 15 - August 14  
(Tamil months : Chithirai - Adi)
2. **Samba** : July 15 - January 14  
(Tamil months : Adi - Margazhi)
3. **Late samba** : September 15 - February 14  
(Tamil months : Puratassi - Thai)
4. **Navarai** : December 15 - March 14  
(Tamil months : Margazhi - Masi)
5. **Kuruvai** : June 1 - August 31  
(Tamil months : Vaikasi - Avani)

### Seed Rate

30 kg. of seeds per acre are required for dry sowing and wet sowing. For cultivation by transplantation method 40 - 42 kg. of seeds are required for preparing the nursery.

### Yield

The yield of grains and straw is given in bags and bundles. One bag is 75 kilos and one bundle is 30 kilos.



## ARIYAN NEL

### Cultivation Aspects

Season	: Samba
Cultivation method	: Transplantation
Soil type	: Sandy clay, Clayey

### Agronomical Features

Crop duration	: 152 days
Nursery age	: 40 days
Height of crop (cm.)	
a) Average	: 123.25
b) Maximum	: 129.7
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 24.8
b) Maximum	: 27.5
Number of grains per earhead	
a) Average	: 108
b) Maximum	: 128

### Characteristics of the Grain

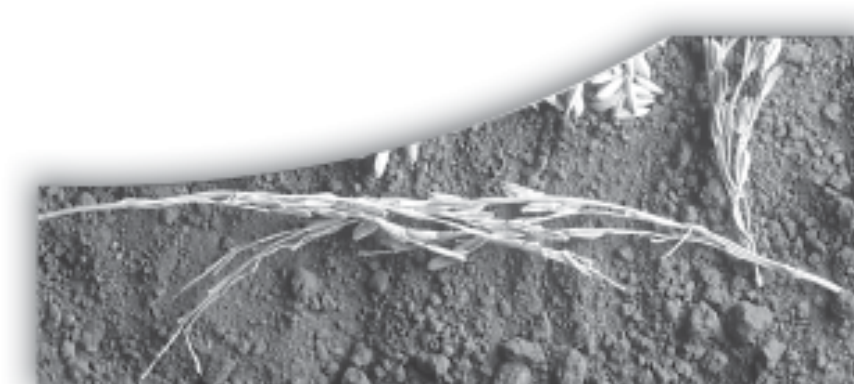
Colour of the grain	: It is light green during flowering and milky stage and turns yellow on maturity.
Weight of 1000 grains	: 33.907 grams
Colour of rice	: Red
Rice quality	: Coarse

### Yield (per Acre)

Grains	: 14 - 15 bags (1050 - 1125 kgs)
Straw	: 55 bundles (1650 kgs)

### Special Features of the Variety

- ◆ Ideal for making idly, dosa.





## ARUVADHAM SAMBA

### Cultivation Aspects

Season	: Navarai, Kuruvai
Cultivation method	: Transplantation
Soil type	: Sandy clay, Clayey soil

### Agronomical Features

Crop duration	: 115 days
Nursery age	: 25 days
Height of crop (cm.)	
a) Average	: 126.2
b) Maximum	: 131
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 26.12
b) Maximum	: 26.6
Number of grains per earhead	
a) Average	: 141
b) Maximum	: 180

### Characteristics of the Grain

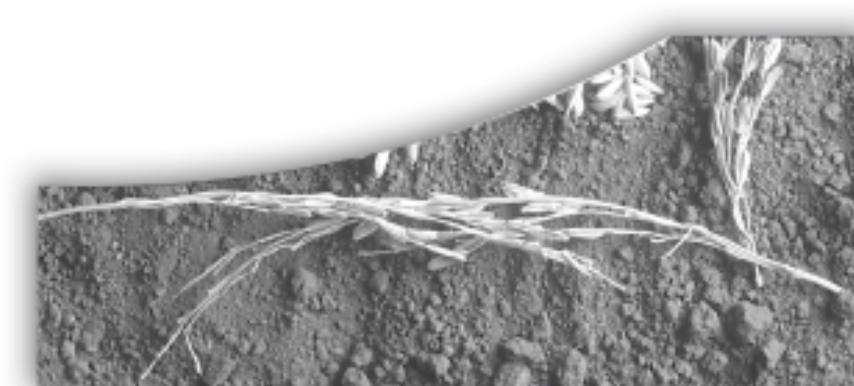
Colour of the grain	: It is light green in the flowering stage and milky stage and turns into a pale yellow colour on maturity.
Weight of 1000 grains	: 25.736 grams
Colour of rice	: Light brown
Rice quality	: Moderate (in between coarse and fine)

### Yield (per Acre)

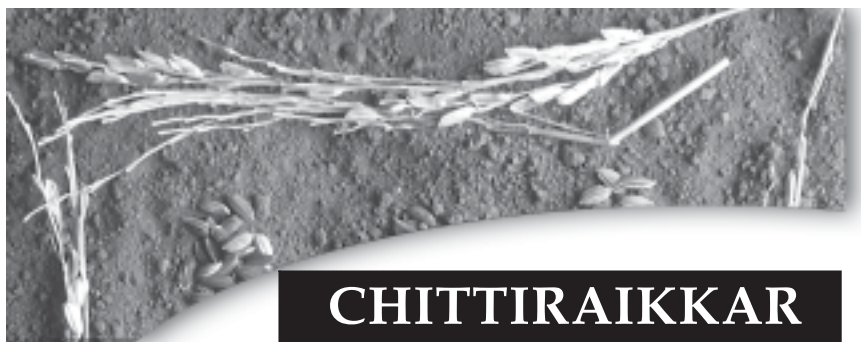
Grains	: 16 bags (1200 kgs)
Straw	: 52 bundles (1560 kgs)

### Special Features of the Variety

- ◆ It is suited for preparation of South Indian meals.
- ◆ There are black dots on the tips of the grains.







## CHITTIRAIKKAR

### Cultivation Aspects

Season	: Kuruvai, Navarai
Cultivation method	: Transplantation
Soil type	: Sandy clay

### Agronomical Features

Crop duration	: 110 days
Nursery age	: 25 days
Height of crop (cm.)	
a) Average	: 99.08
b) Maximum	: 110.5
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 20.22
b) Maximum	: 22.5
Number of grains per earhead	
a) Average	: 71
b) Maximum	: 83

### Characteristics of the Grain

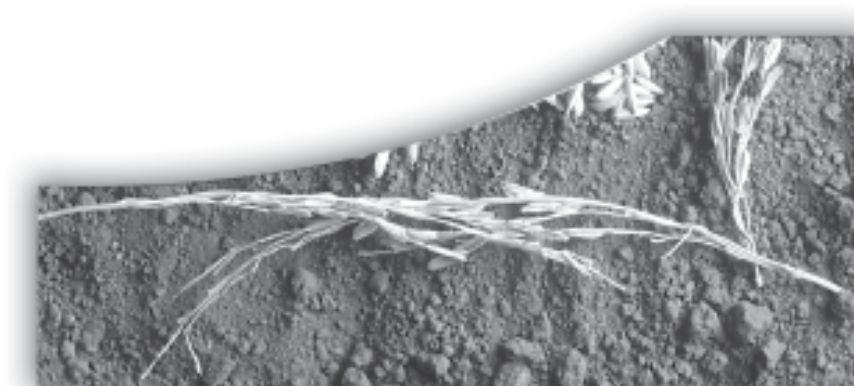
Colour of the grain	: It is light green in the flowering stage, dark green in the milky stage and on maturity becomes straw coloured.
Weight of 1000 grains	: 26.923 grams
Colour of rice	: Red
Rice quality	: Coarse

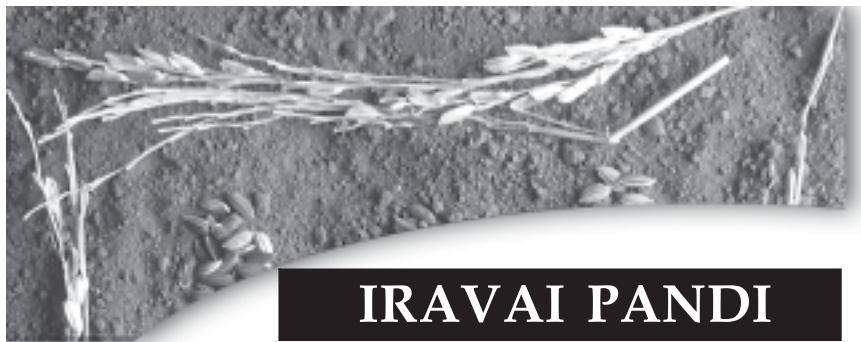
### Yield (per Acre)

Grains	: 10 bags (750 kgs)
Straw	: 40 bundles (1200 kgs)

### Special Features of the Variety

- ◆ The rice of this variety is suited for making idly, dosa.





## IRAVAI PANDI

### Cultivation Aspects

Season	: Samba
Cultivation method	: Transplantation
Soil type	: Sandy clay

### Agronomical Features

Crop duration	: 142 days
Nursery age	: 30 - 35 days
Height of crop (cm.)	
a) Average	: 145
b) Maximum	: 167.5
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 27.76
b) Maximum	: 30.2
Number of grains per earhead	
a) Average	: 193
b) Maximum	: 211

### Characteristics of the Grain

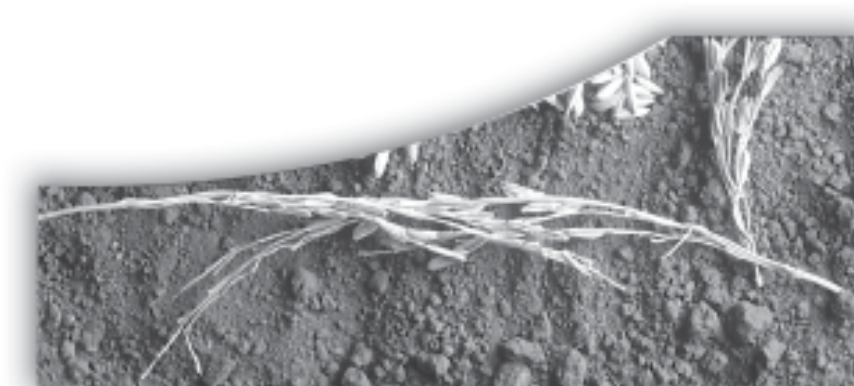
Colour of the grain	: It is light green in the flowering stage, dark green in the milky stage and on maturity turns into a pale yellow colour.
Weight of 1000 grains	: 19.557 grams
Colour of rice	: White
Rice quality	: Moderate (in between coarse and fine)

### Yield (per Acre)

Grains	: 18 bags (1350 kgs)
Straw	: 60 bundles (1800 kgs)

### Special Features of the Variety

- ◆ It is suitable for preparation of South Indian meals.





## JIRKUDAI

### Cultivation Aspects

Season	: Navarai, Kuruvai
Cultivation method	: Transplantation
Soil type	: Sandy clay, Alluvial soil, Clayey soil

### Agronomical Features

Crop duration	: 93 - 95 days
Nursery age	: 23 days
Height of crop (cm.)	
a) Average	: 88.44
b) Maximum	: 100.7
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 18.72
b) Maximum	: 20.7
Number of grains per earhead	
a) Average	: 93
b) Maximum	: 128

### Characteristics of the Grain

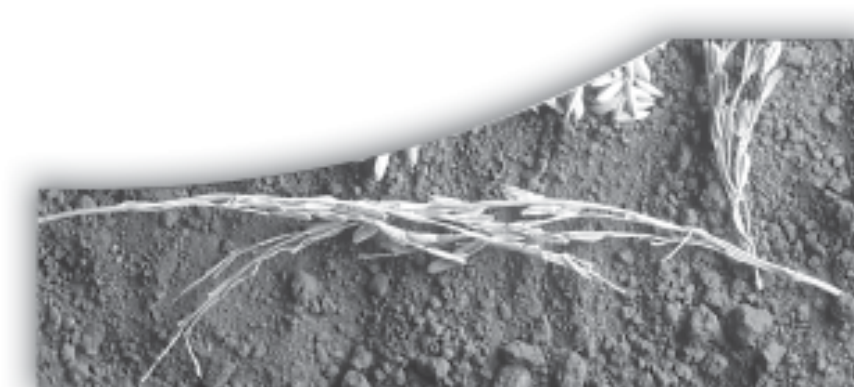
Colour of the grain	: It is light green in the flowering stage, dark green in milky stage and on maturity turns pale yellow with black colour at the tips of the grain.
Weight of 1000 grains	: 17.783 grams
Colour of rice	: Red
Rice quality	: Coarse

### Yield (per Acre)

Grains	: 12 bags (900 kgs)
Straw	: 42 bundles (1260 kgs)

### Special Features of the Variety

- ◆ It is suitable for South Indian meals.
- ◆ Also suited for preparing idly, dosa.
- ◆ One tip of the grain is black in colour.





## KALLURUNDAIYAN

### Cultivation Aspects

Season	: Samba, Navarai
Cultivation method	: Transplantation
Soil type	: Clayey, Sandy clay

### Agronomical Features

Crop duration	: 120 days
Nursery age	: 30 days
Height of crop (cm.)	
a) Average	: 124.06
b) Maximum	: 126
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 25.84
b) Maximum	: 28
Number of grains per earhead	
a) Average	: 111
b) Maximum	: 129

### Characteristics of the Grain

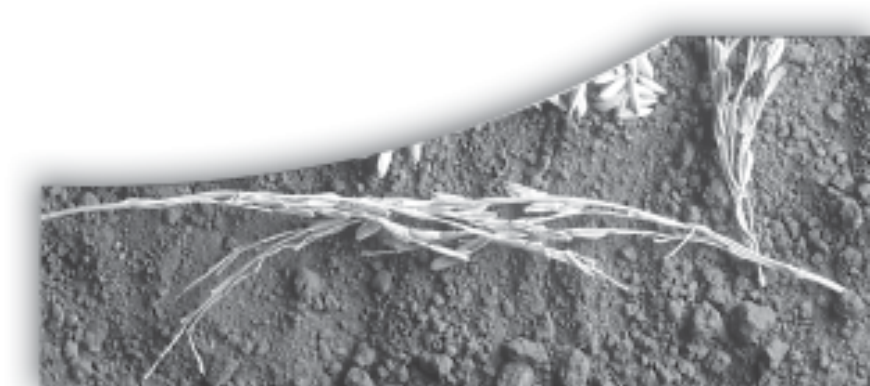
Colour of the grain	: It is light green during the flowering stage, dark green in the milky stage and turns golden on maturity.
Weight of 1000 grains	: 32.619 grams
Colour of rice	: Red
Rice quality	: Coarse

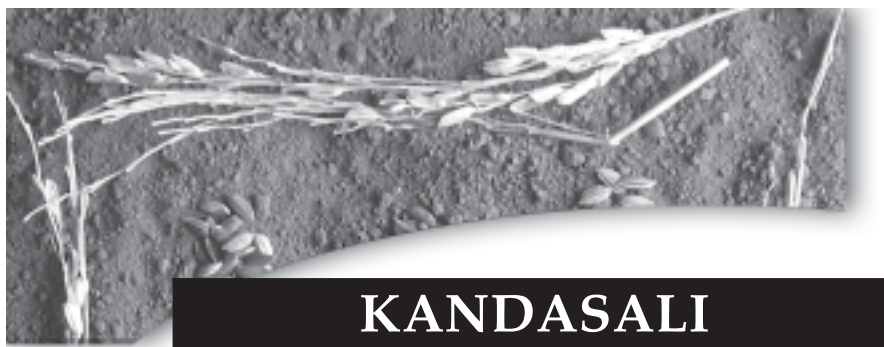
### Yield (per Acre)

Grains	: 14 bags (1050 kgs)
Straw	: 45 bundles (1350 kgs)

### Special Features of the Variety

- ◆ It is ideal for preparation of idli, dosa.





## KANDASALI

### Cultivation Aspects

Season	: Navarai
Cultivation method	: Transplantation
Soil type	: Clayey, Sandy clay

### Agronomical Features

Crop duration	: 125 days
Nursery age	: 30 days
Height of crop (cm.)	
a) Average	: 117.76
b) Maximum	: 124.8
Lodging/Non-lodging	: Non-lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 26
b) Maximum	: 29
Number of grains per earhead	
a) Average	: 173
b) Maximum	: 258

### Characteristics of the Grain

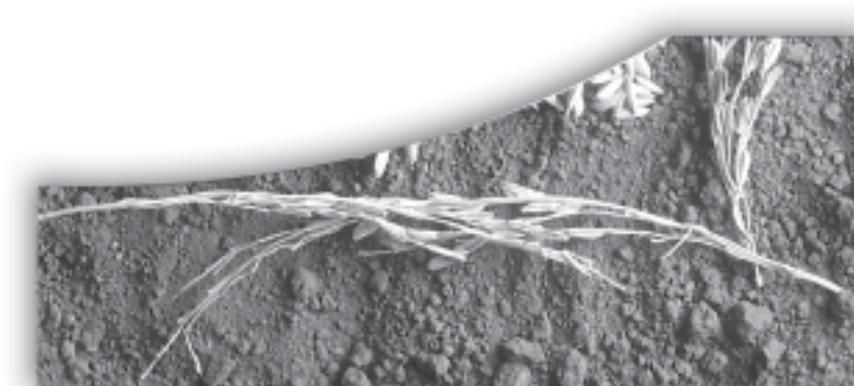
Colour of the grain	: It is light green in the flowering stage and milky stage and turns golden on maturity.
Weight of 1000 grains	: 10.144 grams
Colour of rice	: White
Rice quality	: Extremely fine

### Yield (per Acre)

Grains	: 15 bags (1125 kgs)
Straw	: 60 bundles (1800 kgs)

### Special Features of the Variety

- ◆ It is ideal for preparing South Indian meals.





## KAR SAMBA

### Cultivation Aspects

Season	: Navarai
Cultivation method	: Transplantation
Soil type	: Sandy clay

### Agronomical Features

Crop duration	: 100 - 105 days
Nursery age	: 25 days
Height of crop (cm.)	
a) Average	: 96.2
b) Maximum	: 102.7
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 18.7
b) Maximum	: 21.5
Number of grains per earhead	
a) Average	: 62
b) Maximum	: 81

### Characteristics of the Grain

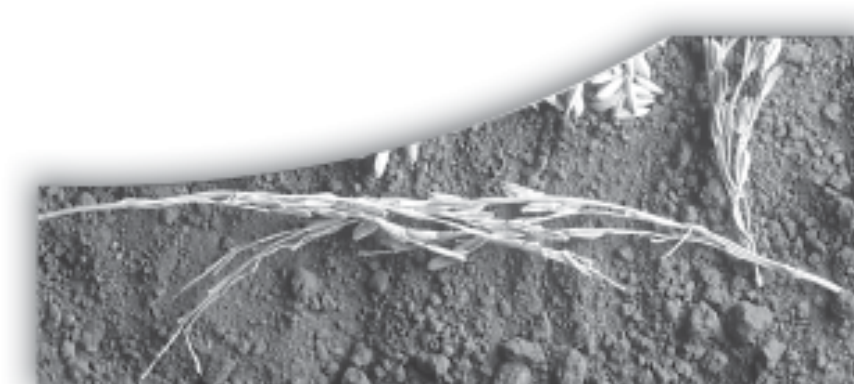
Colour of the grain	: It is light green in the flowering stage, dark green in the milky stage and turns straw coloured on maturity.
Weight of 1000 grains	: 24.768 grams
Colour of rice	: Red
Rice quality	: Coarse

### Yield (per Acre)

Grains	: 12 bags (900 kgs)
Straw	: 45 bundles (1260 kgs)

### Special Features of the Variety

- ◆ The rice of this variety is ideal for making idli, dosa.





## KARTHIGAI SAMBA

### Cultivation Aspects

Season	: Navarai
Cultivation method	: Transplantation
Soil type	: Sandy clay

### Agronomical Features

Crop duration	: 105 days
Nursery age	: 25 days
Height of crop (cm.)	
a) Average	: 98.44
b) Maximum	: 110.5
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 18.96
b) Maximum	: 21.7
Number of grains per earhead	
a) Average	: 65
b) Maximum	: 88

### Characteristics of the Grain

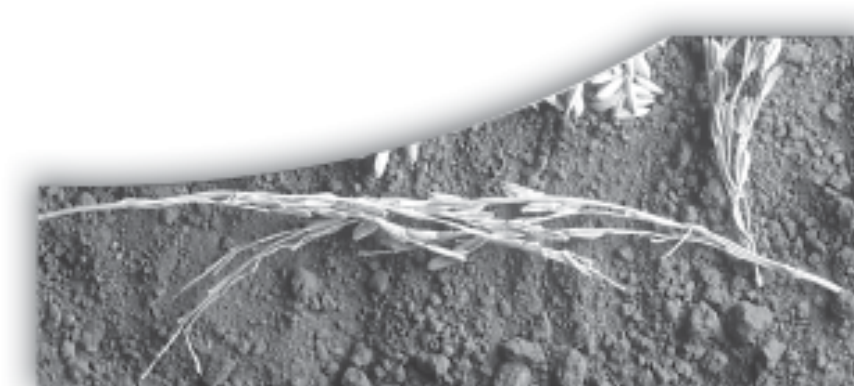
Colour of the grain	: It is light green in the flowering and milky stage and turns pale yellow on maturity.
Weight of 1000 grains	: 22.747 grams
Colour of rice	: Red
Rice quality	: Coarse

### Yield (per Acre)

Grains	: 10 - 12 bags (750 - 900 kgs)
Straw	: 40 bundles (1200 kgs)

### Special Features of the Variety

- ◆ This variety is suitable for making idly, dosa.





## KARUNKURUVAI

### Cultivation Aspects

Season	: Kuruvai, Navarai
Cultivation method	: Transplantation
Soil type	: Clayey soil, Alluvial soil, Sandy clay

### Agronomical Features

Crop duration	: 120 - 125 days
Nursery age	: 28 - 30 days
Height of crop (cm.)	
a) Average	: 95.56
b) Maximum	: 101
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 18.26
b) Maximum	: 21
Number of grains per earhead	
a) Average	: 55.4
b) Maximum	: 68

### Characteristics of the Grain

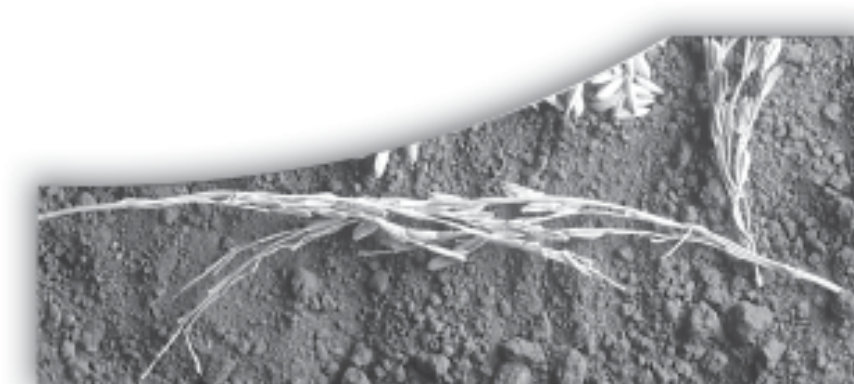
Colour of the grain	: It is light green in the flowering stage, dark green in the milky stage and turns black on maturity.
Weight of 1000 grains	: 25.481 grams
Colour of rice	: Dark brown
Rice quality	: Coarse

### Yield (per Acre)

Grains	: 11 bags (825 kgs)
Straw	: 40 bundles (1200 kgs)

### Special Features of the Variety

- ◆ It is ideal for making idly, dosa.







# KARUPPU NEL

## Cultivation Aspects

Season	: Samba
Cultivation method	: Transplantation, Dry sown
Soil type	: Clayey, Sandy clay

## Agronomical Features

Crop duration	: 140 days
Nursery age	: 35 - 40 days
Height of crop (cm.)	
a) Average	: 122.36
b) Maximum	: 134
Lodging/Non-lodging	: Lodging

## Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 24.9
b) Maximum	: 25.6
Number of grains per earhead	
a) Average	: 91
b) Maximum	: 102

## Characteristics of the Grain

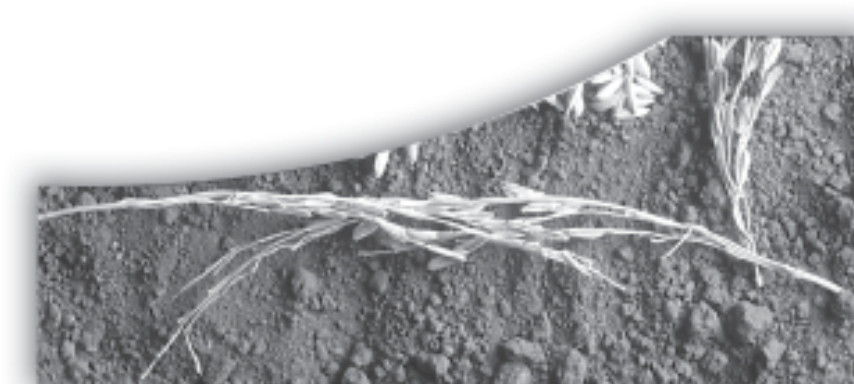
Colour of the grain	: It is light green during the flowering stage, dark green in the milky stage and turns black on maturity.
Weight of 1000 grains	: 32.312 grams
Colour of rice	: Brown
Rice quality	: Coarse

## Yield (per Acre)

Grains	: 14 bags (1050 kgs)
Straw	: 60 bundles (1800 kgs)

## Special Features of the Variety

- ◆ It is ideal for making idly, dosa.
- ◆ Suitable for saline soil.
- ◆ It is suitable for making a speciality dish called 'Pittu' of South India.





## KARUTTAKKAR

### Cultivation Aspects

Season	: Navarai
Cultivation method	: Transplantation
Soil type	: Clayey soil

### Agronomical Features

Crop duration	: 105 - 110 days
Nursery age	: 25 days
Height of crop (cm.)	
a) Average	: 93.22
b) Maximum	: 106.6
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 20.52
b) Maximum	: 74.2
Number of grains per earhead	
a) Average	: 74
b) Maximum	: 106

### Characteristics of the Grain

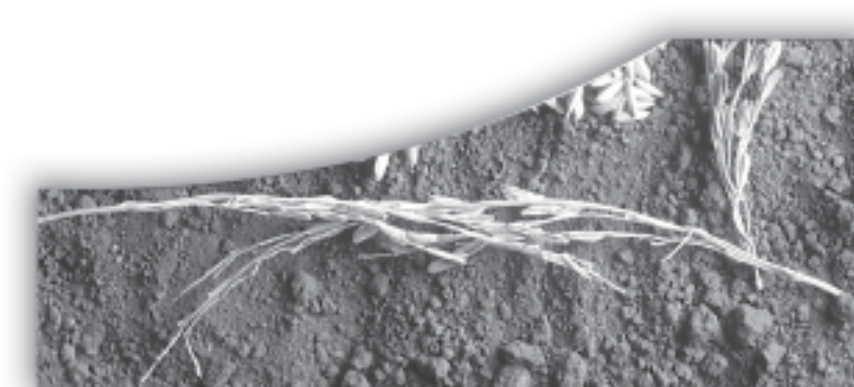
Colour of the grain	: It is light green during the flowering stage, dark green in the milky stage and on maturity turns yellow with brown stripes.
Weight of 1000 grains	: 26.934 grams
Colour of rice	: Dark brown
Rice quality	: Coarse

### Yield (per Acre)

Grains	: 12 bags (900 kgs)
Straw	: 45 bundles (1350 kgs)

### Special Features of the Variety

- ◆ It is suitable for making idli, dosa.





## KATTU SAMBA

### Cultivation Aspects

Season	: Samba, Navarai
Cultivation method	: Transplantation, Dry sown
Soil type	: Sandy clay

### Agronomical Features

Crop duration	: 125 days
Nursery age	: 30 - 32 days
Height of crop (cm.)	
a) Average	: 128.08
b) Maximum	: 134.8
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 23.6
b) Maximum	: 25
Number of grains per earhead	
a) Average	: 116
b) Maximum	: 145

### Characteristics of the Grain

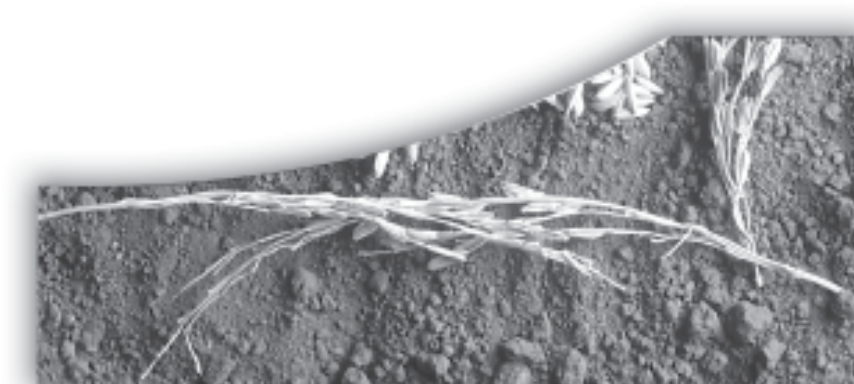
Colour of the grain	: It is light green during flowering and milky stage and on maturity turns yellow in colour.
Weight of 1000 grains	: 26.288 grams
Colour of rice	: Dull white
Rice quality	: Moderately coarse

### Yield (per Acre)

Grains	: 15 bags (1125 kgs)
Straw	: 60 bundles (1800 kgs)

### Special Features of the Variety

- ◆ It is ideal for South Indian meals.
- ◆ It can withstand drought conditions.





# KOLLIKKAR

## Cultivation Aspects

Season : Navarai  
 Cultivation method : Transplantation  
 Soil type : Sandy clay

## Agronomical Features

Crop duration : 120 - 125 days  
 Nursery age : 28 - 30 days  
 Height of crop (cm.)  
 a) Average : 107.32  
 b) Maximum : 113.5  
 Lodging/Non-lodging : Lodging

## Characteristics of the Earhead

Length of the earhead (cm)  
 a) Average : 23.26  
 b) Maximum : 26.5  
 Number of grains per earhead  
 a) Average : 84  
 b) Maximum : 98

## Characteristics of the Grain

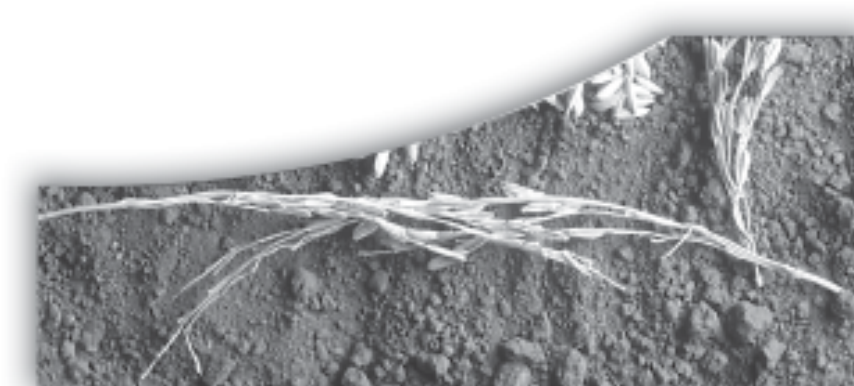
Colour of the grain : It is light green during flowering and milky stage and turns straw coloured on maturity.  
 Weight of 1000 grains : 31.934 grams  
 Colour of rice : Red  
 Rice quality : Coarse

## Yield (per Acre)

Grains : 10 - 12 bags (750 - 900 kgs)  
 Straw : 45 bundles (1350 kgs)

## Special Features of the Variety

◆ It is suitable for preparing idly, dosa.





## KONAKKURUVAI

### Cultivation Aspects

Season	: Navarai, Kuruvai
Cultivation method	: Dry sown, Transplantation
Soil type	: Clayey, Sandy clay

### Agronomical Features

Crop duration	: 110 - 115 days
Nursery age	: 28 - 30 days
Height of crop (cm.)	
a) Average	: 95.92
b) Maximum	: 100.5
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 21.34
b) Maximum	: 21.70
Number of grains per earhead	
a) Average	: 78
b) Maximum	: 112

### Characteristics of the Grain

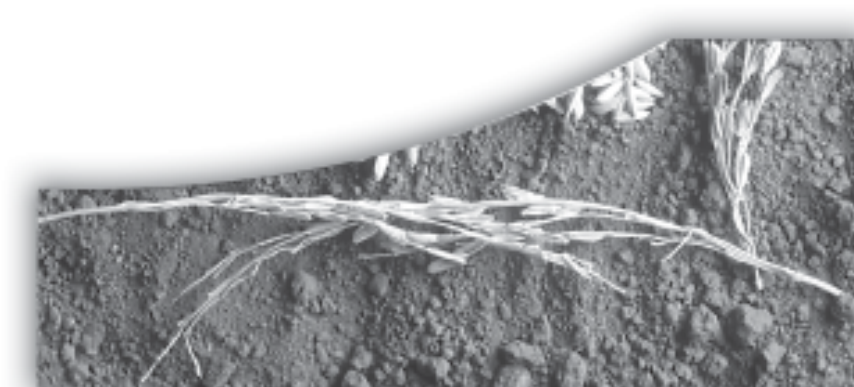
Colour of the grain	: It is light green during the flowering stage, dark green in the milky stage and on maturity becomes light straw coloured.
Weight of 1000 grains	: 35.574 grams
Colour of rice	: Red
Rice quality	: Coarse

### Yield (per Acre)

Grains	: 10 - 12 bags (750 - 900 kgs)
Straw	: 35 bundles (1050 kgs)

### Special Features of the Variety

- ◆ Since it is a coarse variety, it is ideal for making idli, dosa.
- ◆ It is a short duration crop. It can even be cultivated 2 - 3 times in a year.





## KOUNI NEL

### Cultivation Aspects

Season	: Samba
Cultivation method	: Transplantation, Dry sown
Soil type	: Sandy clay, Clayey

### Agronomical Features

Crop duration	: 150 days
Nursery age	: 35 - 40 days
Height of crop (cm.)	
a) Average	: 127.56
b) Maximum	: 140
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 25
b) Maximum	: 28.5
Number of grains per earhead	
a) Average	: 141
b) Maximum	: 175

### Characteristics of the Grain

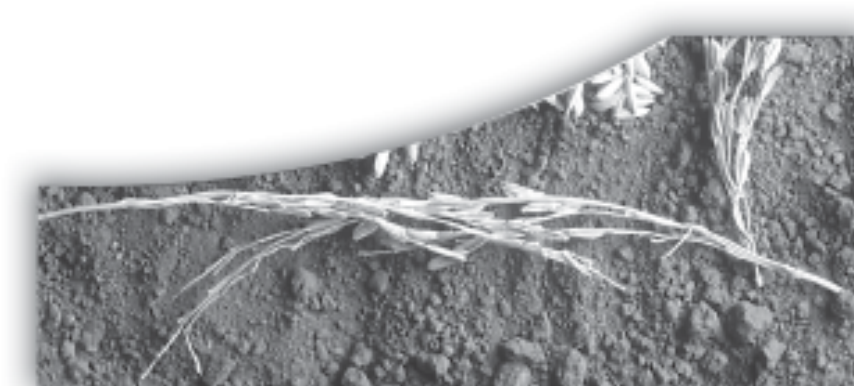
Colour of the grain	: It is light green during flowering stage, dark red during milky stage and turns yellow on maturity.
Weight of 1000 grains	: 27.011 grams
Colour of rice	: Dark brown
Rice quality	: Coarse

### Yield (per Acre)

Grains	: 18 bags (1350 kgs)
Straw	: 60 bundles (1800 kgs)

### Special Features of the Variety

- ◆ The rice of this variety is ideal for preparing the traditional South Indian breakfast foods like idly and dosa.
- ◆ The tip of the grains have awn.





## KURUVAI KALANCHIYAM

### Cultivation Aspects

Season	: Samba
Cultivation method	: Transplantation
Soil type	: Clayey, Sandy clay

### Agronomical Features

Crop duration	: 140 days
Nursery age	: 30 - 35 days
Height of crop (cm.)	
a) Average	: 128
b) Maximum	: 135
Lodging/Non-lodging	: Medium lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 25
b) Maximum	: 29

### Number of grains per earhead

a) Average	: 132.4
b) Maximum	: 180

### Characteristics of the Grain

Colour of the grain	: It is light green in the flowering stage, dark green in the milky stage and turns into yellow colour with dark brown stripes on maturity.
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Weight of 1000 grains	: 35.521 grams
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Colour of rice	: Dark brown
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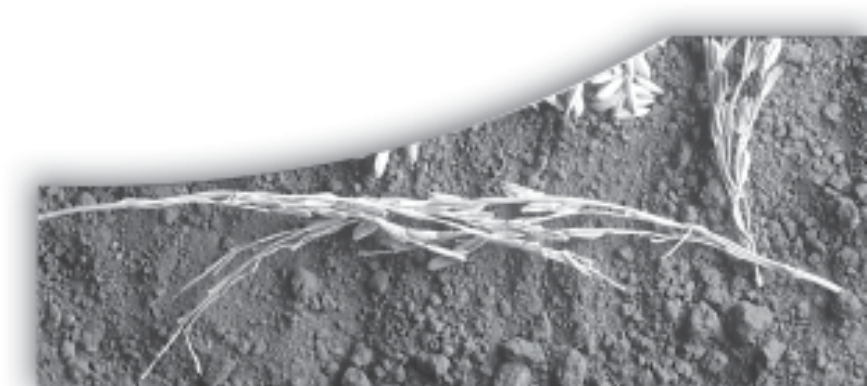
Rice quality	: Coarse
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### Yield (per Acre)

Grains	: 16 bags (1200 kgs)
Straw	: 55 bundles (1650 kgs)

### Special Features of the Variety

- ◆ Since it is a coarse variety, it is ideal for making idli, dosa.





## KURUVAI KALAYAN

### Cultivation Aspects

Season	: Kuruvai, Navarai
Cultivation method	: Transplantation
Soil type	: Clayey, Sandy clay

### Agronomical Features

Crop duration	: 125 days
Nursery age	: 31 days
Height of crop (cm.)	
a) Average	: 128.68
b) Maximum	: 136.5
Lodging/Non-lodging	: Non-lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 26.26
b) Maximum	: 27.5
Number of grains per earhead	
a) Average	: 186.4
b) Maximum	: 230

### Characteristics of the Grain

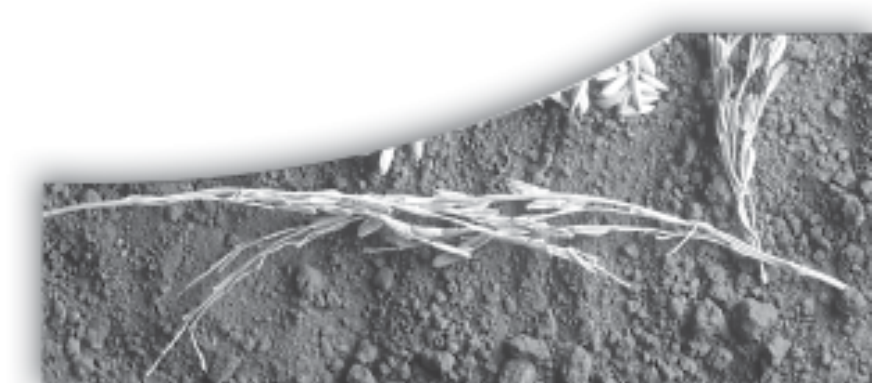
Colour of the grain	: During the flowering stage, it is light green in colour. It is brown with long green stripes in the milky stage and on maturity turns dark brownish yellow.
Weight of 1000 grains	: 27.271 grams
Colour of rice	: Dark brown
Rice quality	: Coarse

### Yield (per Acre)

Grains	: 18 bags (1350 kgs)
Straw	: 55 bundles (1650 kgs)

### Special Features of the Variety

- ◆ It is ideal for making idly, dosa.







## LAKSHMI KAJAL

### Cultivation Aspects

Season	: Samba
Cultivation method	: Transplantation
Soil type	: Sandy clay, Clayey soil

### Agronomical Features

Crop duration	: 131 days
Nursery age	: 30 - 33 days
Height of crop (cm.)	
a) Average	: 133.38
b) Maximum	: 153.2
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 20.5
b) Maximum	: 22.5
Number of grains per earhead	
a) Average	: 82.4
b) Maximum	: 108

### Characteristics of the Grain

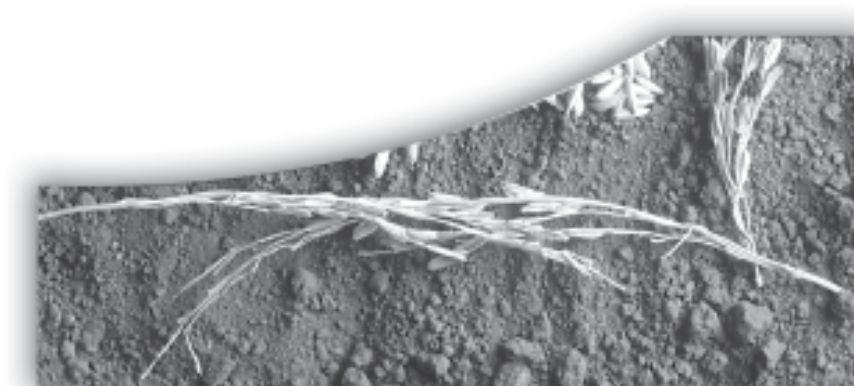
Colour of the grain	: It is dark red in the flowering stage and turns black in the milky stage and maturity stage.
Weight of 1000 grains	: 22.633 grams
Colour of rice	: Brown
Rice quality	: Coarse

### Yield (per Acre)

Grains	: 14 bags (1050 kgs)
Straw	: 60 bundles (1800 kgs)

### Special Features of the Variety

- ◆ The rice of this variety is ideal for making idly, dosa.
- ◆ Kajal is a Hindi word which means Collyrium. Since the grains of this variety are black in colour like collyrium, this variety is known as "Lakshmi Kajal".





## MAHATE

### Cultivation Aspects

Season	: Navarai, Kuruvai
Cultivation method	: Transplantation
Soil type	: Clayey, Sandy clay, Alluvial soil

### Agronomical Features

Crop duration	: 95 - 100 days
Nursery age	: 25 days
Height of crop (cm.)	
a) Average	: 80.88
b) Maximum	: 88
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 17.5
b) Maximum	: 20
Number of grains per earhead	
a) Average	: 59.4
b) Maximum	: 81

### Characteristics of the Grain

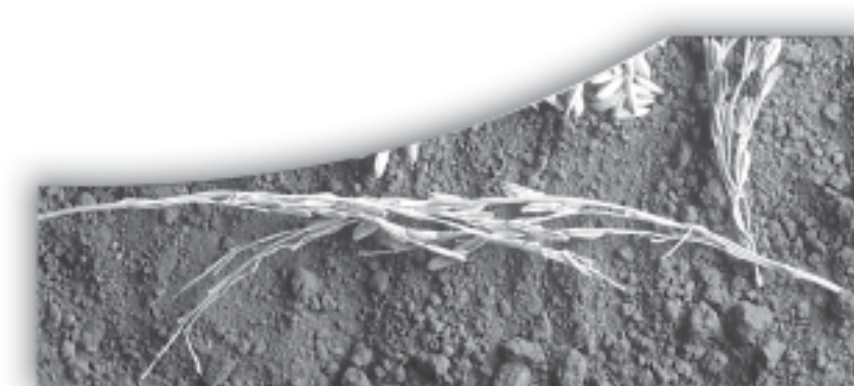
Colour of the grain	: It is light green in the flowering and milky stage and turns pale yellow on maturity.
Weight of 1000 grains	: 24.792 grams
Colour of rice	: Red
Rice quality	: Coarse

### Yield (per Acre)

Grains	: 12 bags (900 kgs)
Straw	: 40 bundles (1200 kgs)

### Special Features of the Variety

- ◆ It is suitable for making idli, dosa.





## MARANEL

### Cultivation Aspects

Season	: Late Samba, Navarai
Cultivation method	: Transplantation
Soil type	: Sandy clay

### Agronomical Features

Crop duration	: 120 - 125 days
Nursery age	: 28 - 30 days
Height of crop (cm.)	
a) Average	: 95.4
b) Maximum	: 100.3
Lodging/Non-lodging	: Medium lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 23.96
b) Maximum	: 26.4
Number of grains per earhead	
a) Average	: 80
b) Maximum	: 103

### Characteristics of the Grain

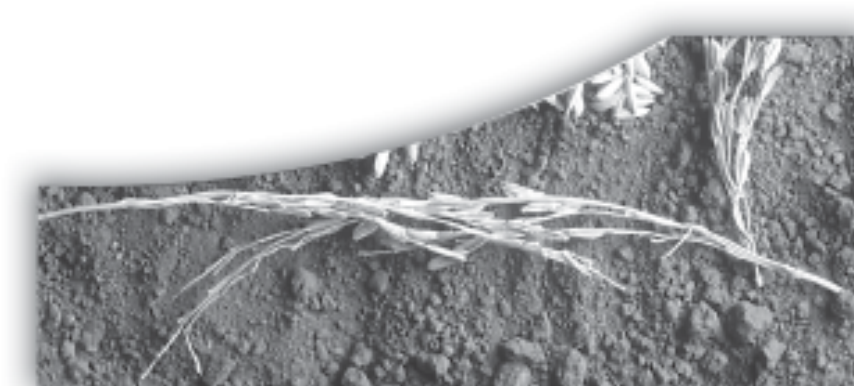
Colour of the grain	: It is light green during the flowering stage, dark green in the milky stage and turns yellow on maturity.
Weight of 1000 grains	: 33.352 grams
Colour of rice	: Red
Rice quality	: Coarse

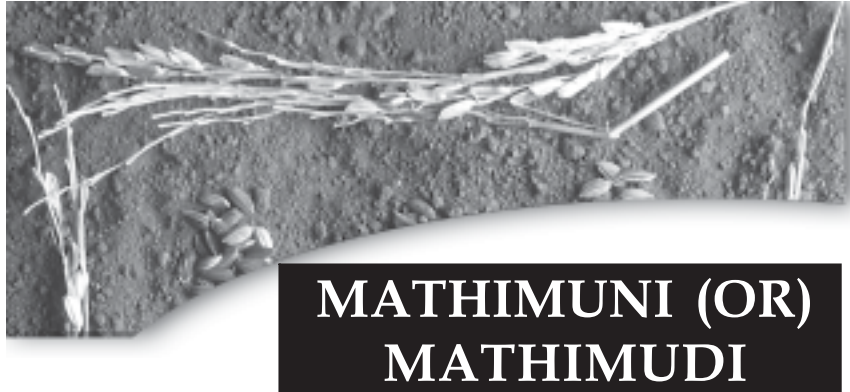
### Yield (per Acre)

Grains	: 13 bags (975 kgs)
Straw	: 45 bundles (1350 kgs)

### Special Features of the Variety

- ◆ Ideal for preparing tiffen varieties like idli, dosa.
- ◆ The grains of this variety have a tough seed coat. So, the grains do not germinate even if there is heavy rainfall at the time of harvest.





## MATHIMUNI (OR) MATHIMUDI

### Cultivation Aspects

Season	: Samba
Cultivation method	: Transplantation, Dry sown
Soil type	: Sandy clay, Clay, Alluvial soil

### Agronomical Features

Crop duration	: 140 days
Nursery age	: 35 days
Height of crop (cm.)	
a) Average	: 95.82
b) Maximum	: 111
Lodging/Non-lodging	: Non-lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 22.26
b) Maximum	: 25

Number of grains per earhead

a) Average	: 91
b) Maximum	: 128

### Characteristics of the Grain

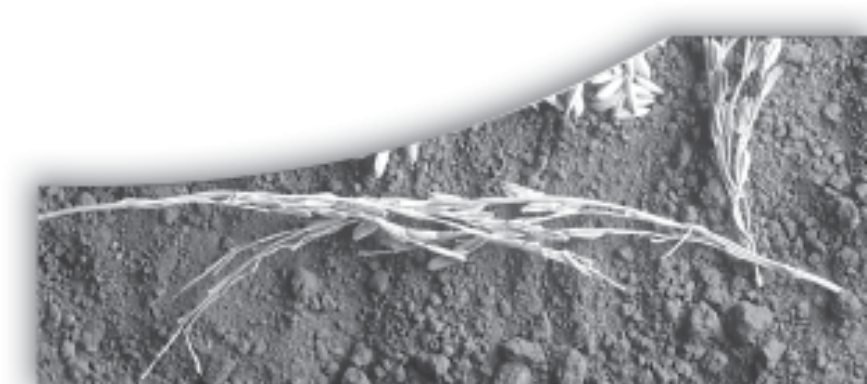
Colour of the grain	: It is light green during flowering stage, dark green during milky stage, and turns yellow on maturity.
Weight of 1000 grains	: 26.146 grams
Colour of rice	: Red
Rice quality	: In between coarse and fine (moderate)

### Yield (per Acre)

Grains	: 14 bags (1050 kgs)
Straw	: 50 bundles (1500 kgs)

### Special Features of the Variety

- ◆ The rice of this variety is ideal for making South Indian meals, idly and dosa.





## MATTAI KURUVAI

### Cultivation Aspects

Season	: Kuruvai, Navarai
Cultivation method	: Transplantation
Soil type	: Clayey, Sandy clay

### Agronomical Features

Crop duration	: 100 - 105 days
Nursery age	: 25 days
Height of crop (cm.)	
a) Average	: 104.9
b) Maximum	: 121.5
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 21.78
b) Maximum	: 23.5
Number of grains per earhead	
a) Average	: 94.8
b) Maximum	: 126

### Characteristics of the Grain

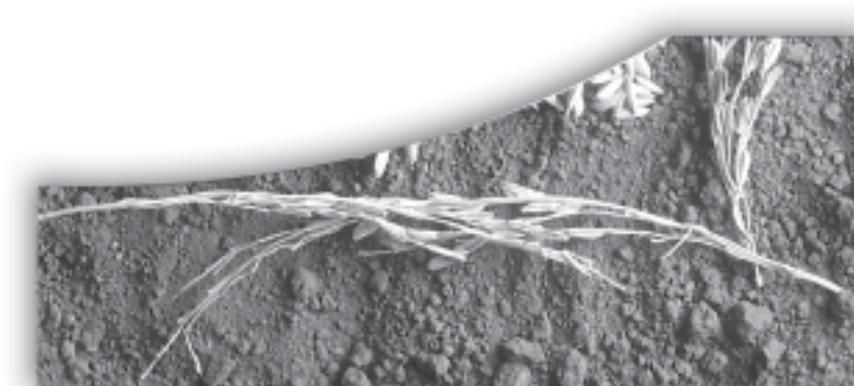
Colour of the grain	: It is light green in the flowering and milky stage and turns into pale yellow colour on maturity.
Weight of 1000 grains	: 22.271 grams
Colour of rice	: Red
Rice quality	: Moderate (in between coarse and fine)

### Yield (per Acre)

Grains	: 12 - 14 bags (900 - 1050 kgs)
Straw	: 54 bundles (1620 kgs)

### Special Features of the Variety

- ◆ It is ideal for preparing South Indian meals, idly and dosa.





## MATTANEL (OR) MATTAIKKAR

### Cultivation Aspects

Season	: Navarai
Cultivation method	: Dry sown, Transplantation
Soil type	: Sandy clay

### Agronomical Features

Crop duration	: 120 days
Nursery age	: 28 - 30 days
Height of crop (cm.)	
a) Average	: 111.22
b) Maximum	: 128
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 23.56
b) Maximum	: 26.5
Number of grains per earhead	
a) Average	: 103
b) Maximum	: 141

### Characteristics of the Grain

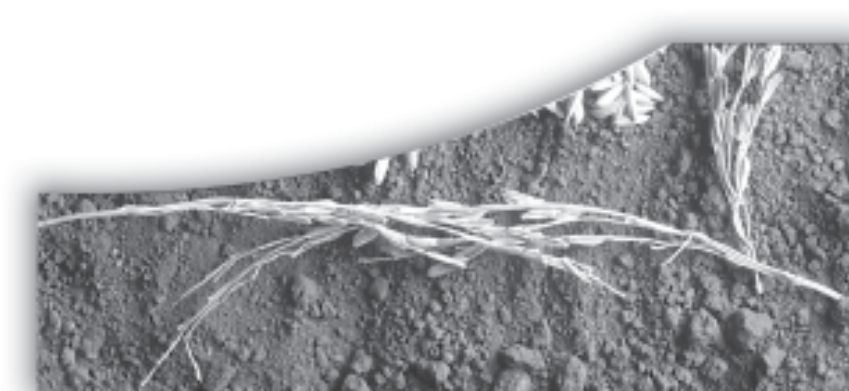
Colour of the grain	: It is light green in the flowering and milky stage and turns yellow with dark brown stripes on maturity.
Weight of 1000 grains	: 29.464 grams
Colour of rice	: Dark brown
Rice quality	: Coarse

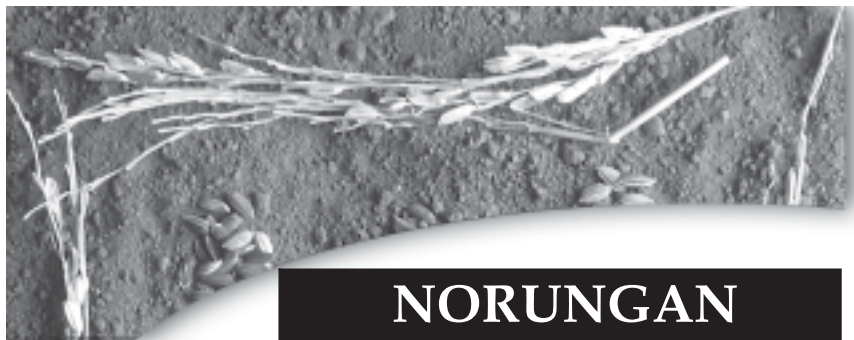
### Yield (per Acre)

Grains	: 14 bags (1050 kgs)
Straw	: 50 bundles (1500 kgs)

### Special Features of the Variety

- ◆ The rice of this variety is ideal for making idli, dosas.
- ◆ It can withstand drought.





## NORUNGAN

### Cultivation Aspects

Season	: Samba, Navarai
Cultivation method	: Transplantation
Soil type	: Clayey

### Agronomical Features

Crop duration	: 115 - 124 days
Nursery age	: 28 - 30 days
Height of crop (cm.)	
a) Average	: 104
b) Maximum	: 116
Lodging/Non-lodging	: Non-lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 22.8
b) Maximum	: 30.1
Number of grains per earhead	
a) Average	: 105
b) Maximum	: 165

### Characteristics of the Grain

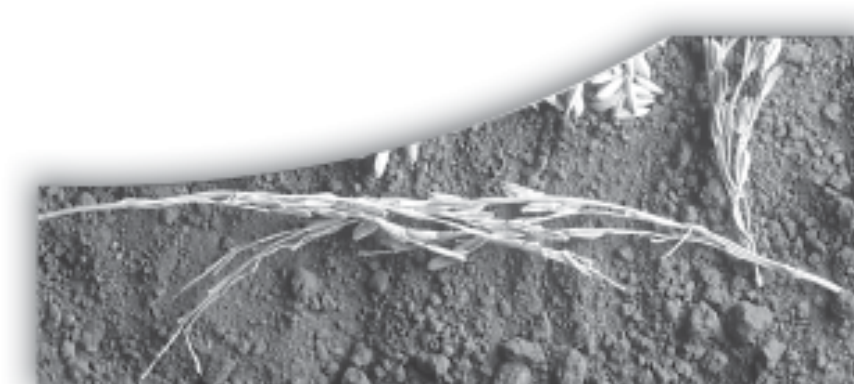
Colour of the grain	: It is light green during the flowering stage, turns dark green in the milky stage and on maturity turns yellow with black stripes.
Weight of 1000 grains	: 32.553 grams
Colour of rice	: Dark brown
Rice quality	: Coarse

### Yield (per Acre)

Grains	: 12 - 15 bags (900 - 1125 kgs)
Straw	: 45 bundles (1350 kgs)

### Special Features of the Variety

- ◆ Since it is a coarse variety, the rice is suitable for making idli.





## ONDRARAI SAMBA

### Cultivation Aspects

Season	: Samba
Cultivation method	: Transplantation
Soil type	: Sandy clay

### Agronomical Features

Crop duration	: 145 days
Nursery age	: 35 days
Height of crop (cm.)	
a) Average	: 114
b) Maximum	: 132.7
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 22.7
b) Maximum	: 26.2
Number of grains per earhead	
a) Average	: 110
b) Maximum	: 134

### Characteristics of the Grain

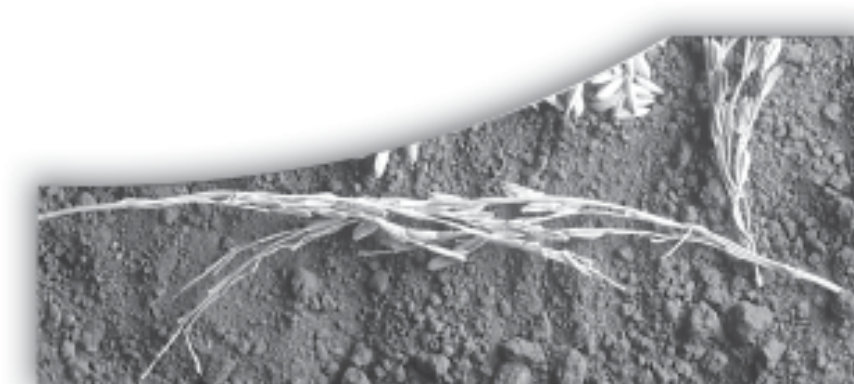
Colour of the grain	: It is light green during the flowering stage and milky stage and on maturity turns straw coloured.
Weight of 1000 grains	: 30.487 grams
Colour of rice	: Light brown
Rice quality	: Coarse

### Yield (per Acre)

Grains	: 16 bags (1200 kgs)
Straw	: 55 bundles (1650 kgs)

### Special Features of the Variety

- ◆ This variety is good for South Indian meals and also for making idli, dosa.
- ◆ The grains of this variety are long.
- ◆ The length of the grains of this variety is 1 ½ times the length of the grains of Samba variety. Hence it is called "Ondrarai Samba" (Ondrarai in Tamil means 1½).







## PATTAR PISIN

### Cultivation Aspects

Season	: Samba
Cultivation method	: Transplantation, Dry sown
Soil type	: Sandy clay, Clay soil

### Agronomical Features

Crop duration	: 160 days
Nursery age	: 40 days
Height of crop (cm.)	
a) Average	: 121.96
b) Maximum	: 138
Lodging/Non-lodging	: Non-lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 24.14
b) Maximum	: 27.7
Number of grains per earhead	
a) Average	: 148
b) Maximum	: 172

### Characteristics of the Grain

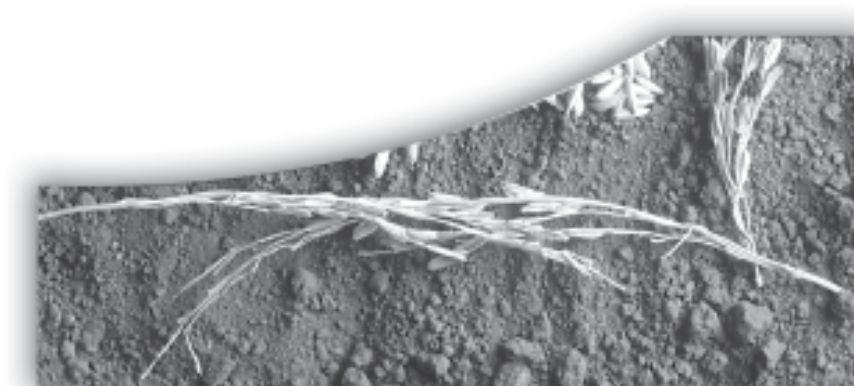
Colour of the grain	: It is light green during flowering stage, dark green during milky stage, and turns yellow with brown stripes on maturity.
Weight of 1000 grains	: 30.067 grams
Colour of rice	: Dark brown
Rice quality	: Coarse

### Yield (per Acre)

Grains	: 16 bags (1200 kgs)
Straw	: 60 bundles (1800 kgs)

### Special Features of the Variety

- ◆ It is ideal for making idly, dosa.





## PATTARAIKKAR

### Cultivation Aspects

Season	: Navarai
Cultivation method	: Transplantation
Soil type	: Clayey soil

### Agronomical Features

Crop duration	: 95 - 100 days
Nursery age	: 25 days
Height of crop (cm.)	
a) Average	: 75.6
b) Maximum	: 97
Lodging/Non-lodging	: Non-lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 19.1
b) Maximum	: 21.2
Number of grains per earhead	
a) Average	: 58
b) Maximum	: 61

### Characteristics of the Grain

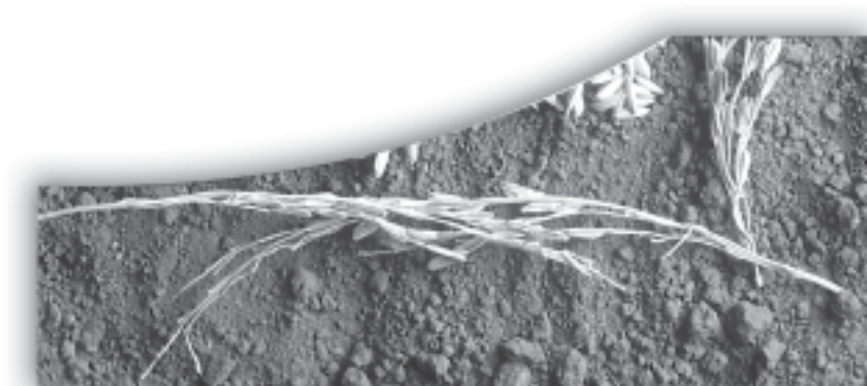
Colour of the grain	: It is light green in the flowering stage, dark green in the milky stage and on maturity becomes light yellow.
Weight of 1000 grains	: 24.931 grams
Colour of rice	: Red
Rice quality	: Coarse

### Yield (per Acre)

Grains	: 8 bags (600 kgs)
Straw	: 40 bundles (1200 kgs)

### Special Features of the Variety

- ◆ It is suitable for making idly, dosa.
- ◆ Can also be used for preparing South Indian meals.





## PUZHUTHI SAMBA

### Cultivation Aspects

Season	: Samba
Cultivation method	: Dry sown, Transplantation
Soil type	: Sandy clay or Alluvial soil

### Agronomical Features

Crop duration	: 130 days
Nursery age	: 30 - 35 days
Height of crop (cm.)	
a) Average	: 98.1
b) Maximum	: 101.1
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 19.19
b) Maximum	: 21.5
Number of grains per earhead	
a) Average	: 88
b) Maximum	: 96

### Characteristics of the Grain

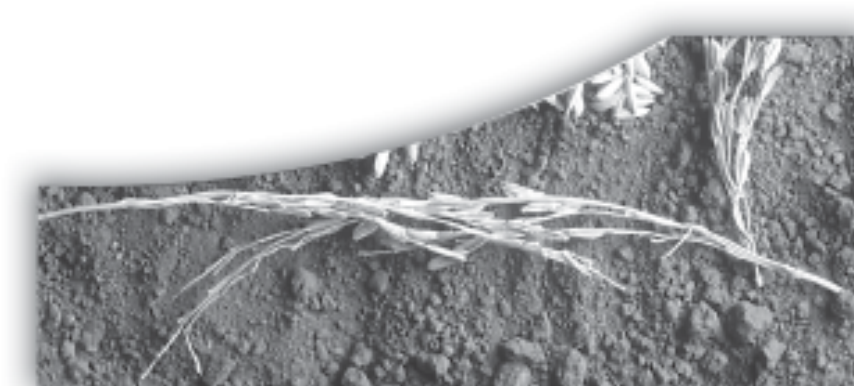
Colour of the grain	: It is light green in the flowering stage, dark green in the milky stage and becomes pale straw coloured on maturity.
Weight of 1000 grains	: 25.795 grams
Colour of rice	: Red
Rice quality	: Coarse

### Yield (per Acre)

Grains	: 11 bags (825 kgs)
Straw	: 32 bundles (960 kgs)

### Special Features of the Variety

- ◆ Ideal for dry sowing.
- ◆ Drought resistant variety.





# PUZHUTHIKKAL

## Cultivation Aspects

- Season : Navarai
- Cultivation method : Transplantation
- Soil type : Sandy clay

## Agronomical Features

- Crop duration : 115 days
- Nursery age : 30 days
- Height of crop (cm.)
  - a) Average : 111.82
  - b) Maximum : 127.2
- Lodging/Non-lodging : Non-lodging

## Characteristics of the Earhead

- Length of the earhead (cm)
  - a) Average : 22.28
  - b) Maximum : 26
- Number of grains per earhead
  - a) Average : 103
  - b) Maximum : 129

## Characteristics of the Grain

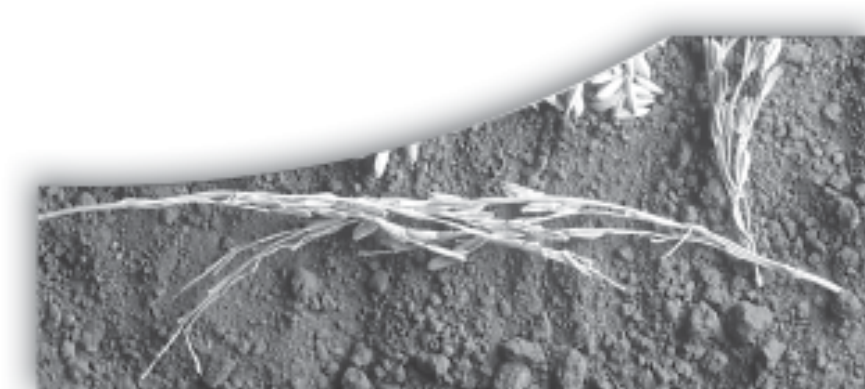
- Colour of the grain : It is light green in the flowering and milky stage and turns golden on maturity.
- Weight of 1000 grains : 23.920 grams
- Colour of rice : Dull white
- Rice quality : Fine

## Yield (per Acre)

- Grains : 14 bags (1050 kgs)
- Straw : 50 bundles (1500 kgs)

## Special Features of the Variety

- ◆ This variety is ideal for preparing South Indian meals.





## PUZHUTHIKKAR

### Cultivation Aspects

Season	: Samba
Cultivation method	: Direct dry sowing or transplantation
Soil type	: Sandy clay or Alluvial soil

### Agronomical Features

Crop duration	: 150 - 155 days (130 days if sown directly)
Nursery age	: 40 days
Height of crop (cm.)	
a) Average	: 132.9
b) Maximum	: 143.5
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 27.02
b) Maximum	: 29.2
Number of grains per earhead	
a) Average	: 177
b) Maximum	: 206

### Characteristics of the Grain

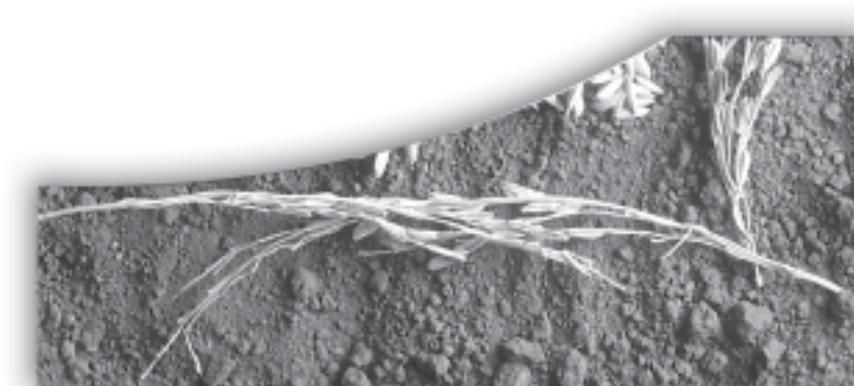
Colour of the grain	: It is light green in the flowering stage, dark green in the milky stage and turns straw coloured on maturity.
Weight of 1000 grains	: 36.553 grams
Colour of rice	: Red
Rice quality	: Coarse

### Yield (per Acre)

Grains	: 25 bags (1875 kgs)
Straw	: 80 bundles (2400 kgs)

### Special Features of the Variety

- ◆ It is ideal for preparing idli, dosa.
- ◆ It can withstand drought.





## RASAGADAM

### Cultivation Aspects

Season	: Navarai
Cultivation method	: Transplantation
Soil type	: Sandy clay, Alluvial soil

### Agronomical Features

Crop duration	: 125 days
Nursery age	: 30 days
Height of crop (cm.)	
a) Average	: 109.84
b) Maximum	: 120.2
Lodging/Non-lodging	: Non-lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 21.6
b) Maximum	: 23.8
Number of grains per earhead	
a) Average	: 133
b) Maximum	: 160

### Characteristics of the Grain

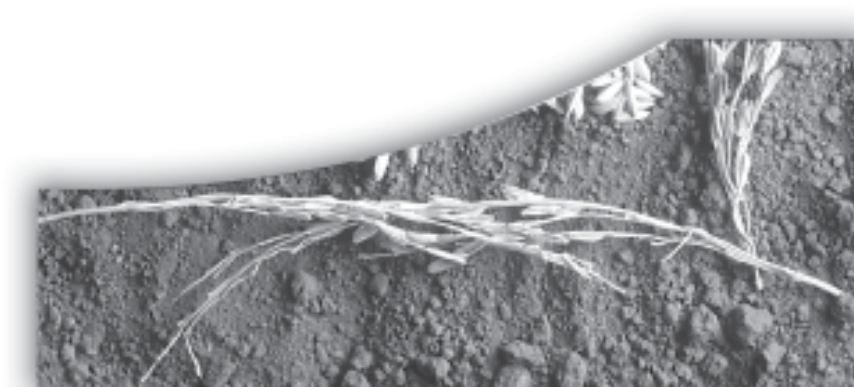
Colour of the grain	: It is light green in the flowering stage, red during milky stage and becomes dark yellowish red colour on maturity.
Weight of 1000 grains	: 11.781 grams
Colour of rice	: White
Rice quality	: Fine

### Yield (per Acre)

Grains	: 15 bags (1125 kgs)
Straw	: 52 bundles (1560 kgs)

### Special Features of the Variety

- ◆ It is ideal for preparation of South Indian meals.
- ◆ The grains of this variety are very small and round.





## SALEM SAMBA

### Cultivation Aspects

Season	: Samba
Cultivation method	: Transplantation
Soil type	: Clayey soil

### Agronomical Features

Crop duration	: 130 days
Nursery age	: 32 days
Height of crop (cm.)	
a) Average	: 104.96
b) Maximum	: 110.5
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 21.48
b) Maximum	: 23.1
Number of grains per earhead	
a) Average	: 125
b) Maximum	: 152

### Characteristics of the Grain

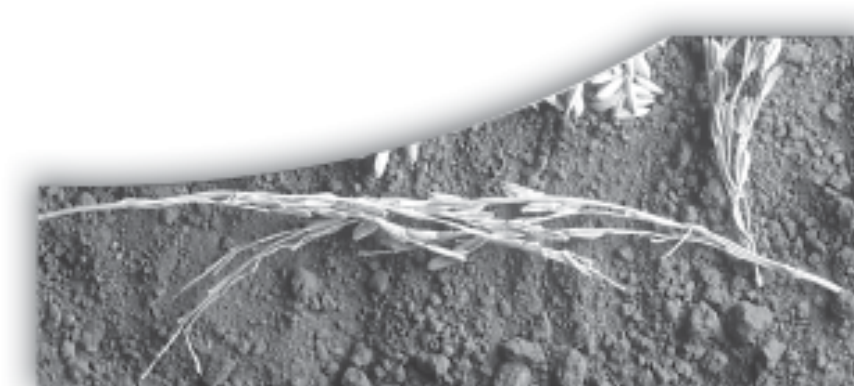
Colour of the grain	: It is light green in the flowering stage, red in the milky stage and dark yellowish red on maturity.
Weight of 1000 grains	: 16.729 grams
Colour of rice	: White
Rice quality	: Fine

### Yield (per Acre)

Grains	: 16 bags (1200 kgs)
Straw	: 60 bundles (1800 kgs)

### Special Features of the Variety

- ◆ It is ideal for preparing South Indian meals.





## SANDIKKAR

### Cultivation Aspects

Season	: Samba
Cultivation method	: Transplantation
Soil type	: Clayey, Sandy alluvial soil

### Agronomical Features

Crop duration	: 155 - 162 days (115 - 120 days when dry sown)
Nursery age	: 40 - 42 days
Height of crop (cm.)	
a) Average	: 134.1
b) Maximum	: 146.8
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 24.68
b) Maximum	: 27.9
Number of grains per earhead	
a) Average	: 135.6
b) Maximum	: 168

### Characteristics of the Grain

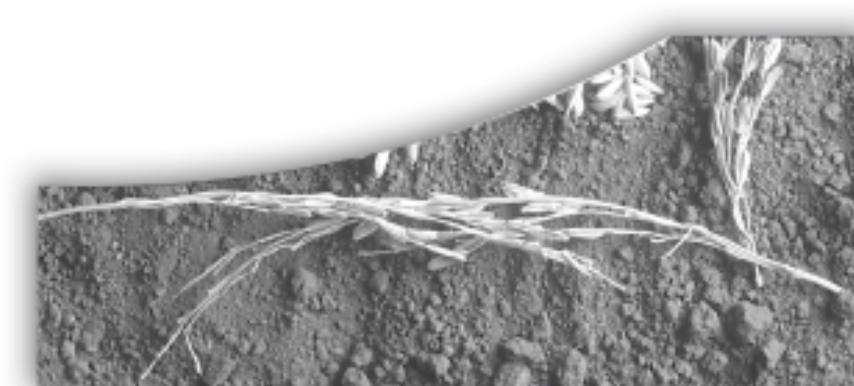
Colour of the grain	: It is light green in the flowering and milky stage and turns light straw coloured during maturity.
Weight of 1000 grains	: 27.816 grams
Colour of rice	: White
Rice quality	: Coarse

### Yield (per Acre)

Grains	: 14 - 16 bags (1050 - 1200 kgs)
Straw	: 50 bundles (1500 kgs)

### Special Features of the Variety

- ◆ The rice of this variety is ideal for South Indian meals.







# SANNA SAMBA

## Cultivation Aspects

- Season : Samba
- Cultivation method : Transplantation
- Soil type : Sandy clay

## Agronomical Features

- Crop duration : 140 days
- Nursery age : 31 days
- Height of crop (cm.)
  - a) Average : 144.14
  - b) Maximum : 152.5
- Lodging/Non-lodging : Lodging

## Characteristics of the Earhead

- Length of the earhead (cm)
  - a) Average : 25.44
  - b) Maximum : 25.8
- Number of grains per earhead
  - a) Average : 224
  - b) Maximum : 260

## Characteristics of the Grain

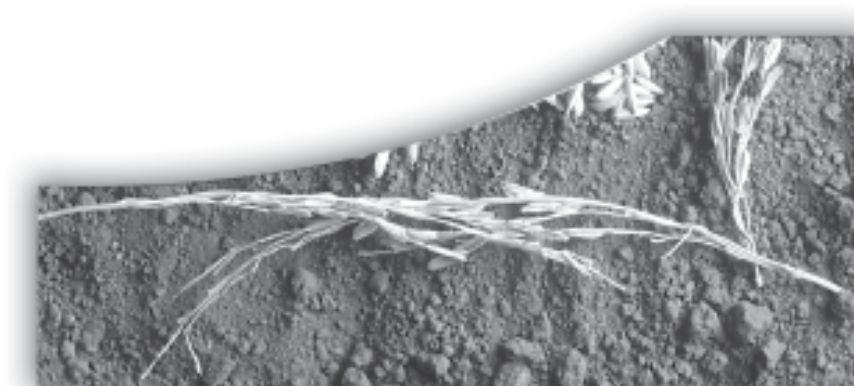
- Colour of the grain : It is light green in the flowering and milky stage and on maturity turns into a pale yellow.
- Weight of 1000 grains : 23.035 grams
- Colour of rice : Light brown
- Rice quality : Moderate (in between coarse and fine)

## Yield (per Acre)

- Grains : 24 bags (1800 kgs)
- Straw : 70 bundles (2100 kgs)

## Special Features of the Variety

- ◆ The rice of this variety is ideal for preparing idli, dosa.
- ◆ It is also suited for preparation of South Indian meals.





## SIVAPPU KUZHIADICHAN

### Cultivation Aspects

Season	: Navarai, Samba
Cultivation method	: Transplantation
Soil type	: Sandy clay

### Agronomical Features

Crop duration	: 100 - 110 days
Nursery age	: 25 days
Height of crop (cm.)	
a) Average	: 95.22
b) Maximum	: 101.5
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 20.18
b) Maximum	: 23.2
Number of grains per earhead	
a) Average	: 86
b) Maximum	: 109

### Characteristics of the Grain

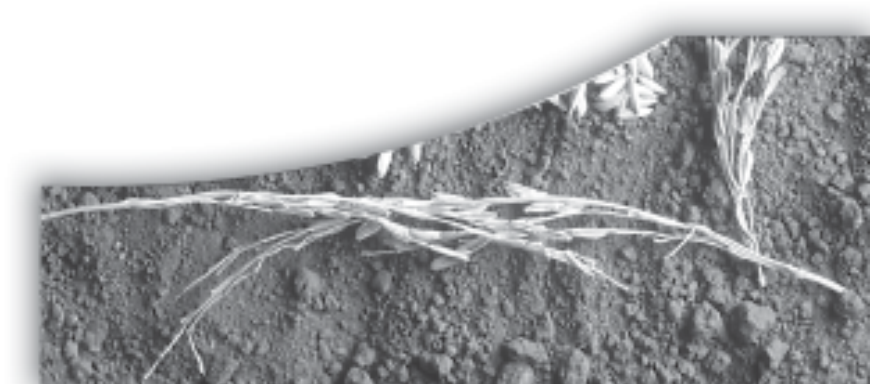
Colour of the grain	: It is light green in the flowering stage, dark green in the milky stage and on maturity becomes pale yellow with black stripes.
Weight of 1000 grains	: 31.971 grams
Colour of rice	: Brown
Rice quality	: Coarse (and round)

### Yield (per Acre)

Grains	: 12 bags (900 kgs)
Straw	: 35 bundles (1050 kgs)

### Special Features of the Variety

- ◆ Since it is a coarse variety, it is ideal for preparation of idli and dosa.





## SOORAN KURUVAI

### Cultivation Aspects

Season	: Late Samba, Samba
Cultivation method	: Transplantation
Soil type	: Sandy clay

### Agronomical Features

Crop duration	: 130 - 135 days
Nursery age	: 30 - 35 days
Height of crop (cm.)	
a) Average	: 102.24
b) Maximum	: 115.4
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 17.14
b) Maximum	: 21
Number of grains per earhead	
a) Average	: 89
b) Maximum	: 110

### Characteristics of the Grain

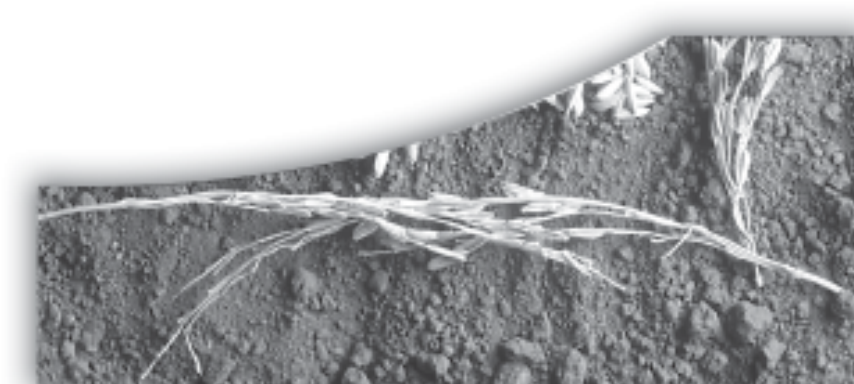
Colour of the grain	: It is light green in the flowering stage, dark green in the milky stage and on maturity turns yellow with brown stripes.
Weight of 1000 grains	: 32.371 grams
Colour of rice	: Dark brown
Rice quality	: Coarse

### Yield (per Acre)

Grains	: 16 bags (1200 kgs)
Straw	: 50 bundles (1500 kgs)

### Special Features of the Variety

- ◆ The rice of this variety is ideal for making idli and dosa.





## SORNAVALI

### Cultivation Aspects

Season	: Sornavari, Navarai
Cultivation method	: Transplantation
Soil type	: Sandy clay, Clayey soil

### Agronomical Features

Crop duration	: 115 days
Nursery age	: 25 days
Height of crop (cm.)	
a) Average	: 102.14
b) Maximum	: 105
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 20.56
b) Maximum	: 21.8
Number of grains per earhead	
a) Average	: 83
b) Maximum	: 109

### Characteristics of the Grain

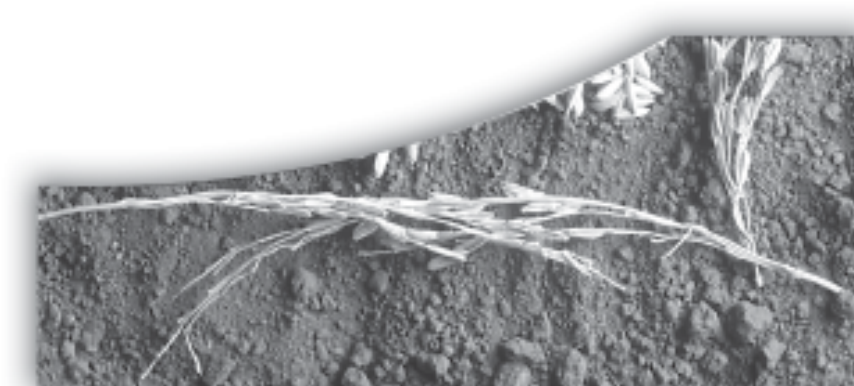
Colour of the grain	: It is light green during the flowering stage, dark green in the milky stage and turns straw coloured on maturity.
Weight of 1000 grains	: 31.622 grams
Colour of rice	: Light brown
Rice quality	: Coarse

### Yield (per Acre)

Grains	: 13 bags (975 kgs)
Straw	: 45 bundles (1350 kgs)

### Special Features of the Variety

- ◆ The rice of this variety is suitable for the South Indian meals and also for preparing idli, dosas.





## SORNAVARI

### Cultivation Aspects

Season	: Sornavari
Cultivation method	: Transplantation
Soil type	: Sandy clay

### Agronomical Features

Crop duration	: 120 - 125 days
Nursery age	: 25 - 28 days
Height of crop (cm.)	
a) Average	: 122.76
b) Maximum	: 135.2
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 24.56
b) Maximum	: 25.5
Number of grains per earhead	
a) Average	: 116
b) Maximum	: 130

### Characteristics of the Grain

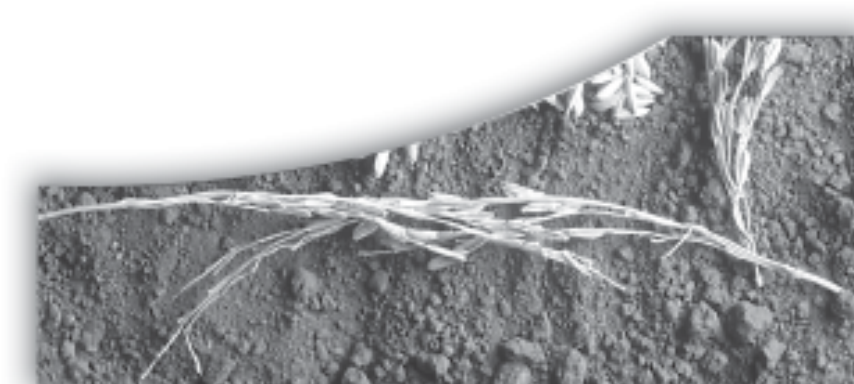
Colour of the grain	: It is light green during the flowering stage, dark green during milky stage and is yellow with brown stripes on maturity.
Weight of 1000 grains	: 34.698 grams
Colour of rice	: Red
Rice quality	: Coarse

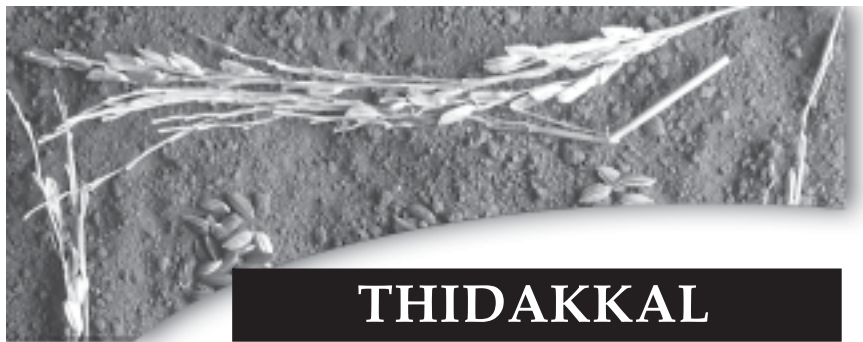
### Yield (per Acre)

Grains	: 15 bags (1125 kgs)
Straw	: 50 bundles (1500 kgs)

### Special Features of the Variety

- ◆ Ideal for preparing idli, dosa
- ◆ It can withstand drought conditions.





## THIDAKKAL

### Cultivation Aspects

Season	: Late samba, Navarai
Cultivation method	: Transplantation
Soil type	: Sandy clay

### Agronomical Features

Crop duration	: 100 - 105 days
Nursery age	: 24 days
Height of crop (cm.)	
a) Average	: 94.74
b) Maximum	: 100
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 21.44
b) Maximum	: 24
Number of grains per earhead	
a) Average	: 86
b) Maximum	: 111

### Characteristics of the Grain

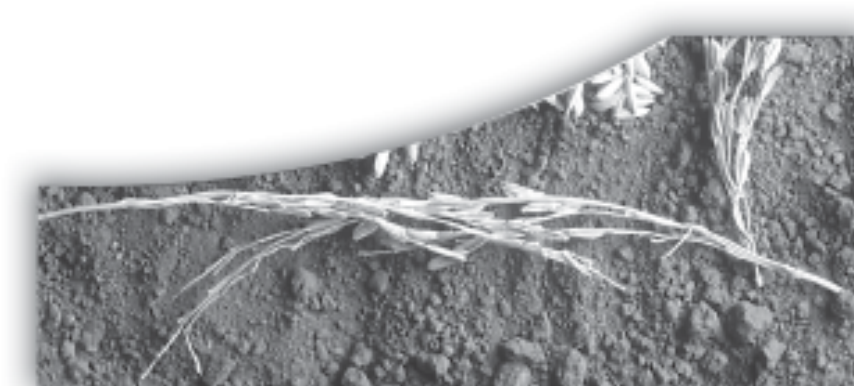
Colour of the grain	: It is light green during the flowering stage, dark green in the milky stage and on maturity turns into blackish yellow.
Weight of 1000 grains	: 29.632 grams
Colour of rice	: Dark brown
Rice quality	: Coarse

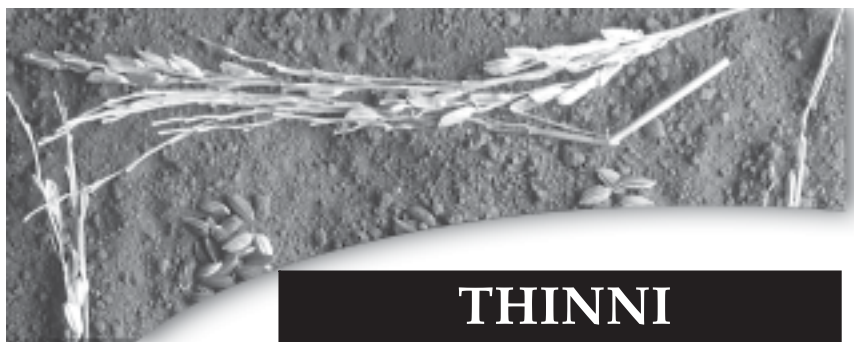
### Yield (per Acre)

Grains	: 13 bags (975 kgs)
Straw	: 35 bundles (1050 kgs)

### Special Features of the Variety

- ◆ This variety of rice is suitable for making idly and dosa.





## THINNI

### Cultivation Aspects

Season	: Navarai
Cultivation method	: Transplantation, Wet sown
Soil type	: Sandy clay, Clayey soil

### Agronomical Features

Crop duration	: 120 days
Nursery age	: 28 days
Height of crop (cm.)	
a) Average	: 82.54
b) Maximum	: 90
Lodging/Non-lodging	: Non-lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 19.52
b) Maximum	: 20.8
Number of grains per earhead	
a) Average	: 146.8
b) Maximum	: 160

### Characteristics of the Grain

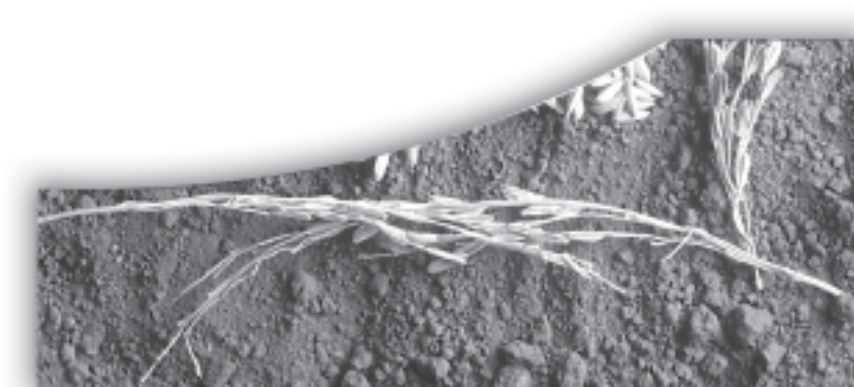
Colour of the grain	: It is light green in the flowering stage, dark green in the milky stage and on maturity turns straw coloured.
Weight of 1000 grains	: 11.944 grams
Colour of rice	: White
Rice quality	: Fine

### Yield (per Acre)

Grains	: 13 bags (975 kgs)
Straw	: 40 bundles (1200 kgs)

### Special Features of the Variety

- ◆ It is highly suitable for preparing South Indian meals.
- ◆ It is ideal for preparing special dishes like 'Biryani'.





## VARAPPU KUDAINCHAN

### Cultivation Aspects

Season	: Navarai, Kuruvai
Cultivation method	: Transplantation
Soil type	: Clayey

### Agronomical Features

Crop duration	: 110 - 115 days
Nursery age	: 25 days
Height of crop (cm.)	
a) Average	: 108.14
b) Maximum	: 124
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 22.88
b) Maximum	: 25
Number of grains per earhead	
a) Average	: 125
b) Maximum	: 157

### Characteristics of the Grain

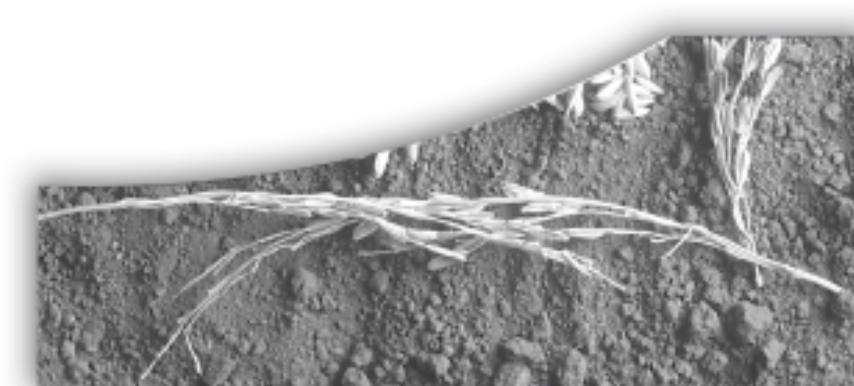
Colour of the grain	: It is light green in the flowering stage, dark green in the milky stage and turns dark yellow on maturity.
Weight of 1000 grains	: 33.026 grams
Colour of rice	: Red
Rice quality	: Coarse

### Yield (per Acre)

Grains	: 10 - 12 bags (700 - 900 kgs)
Straw	: 40 bundles (1200 kgs)

### Special Features of the Variety

- ◆ This rice is highly suitable for making idli.
- ◆ Their roots penetrate to a great depth into the ridges and are hence called 'Varappu Kudainchan' (Varappu - ridges; Kudainchan - penetrator in Tamil)







## VEETHI VADANKAN

### Cultivation Aspects

Season	: Samba
Cultivation method	: Dry sown, Transplantation
Soil type	: Sandy clay

### Agronomical Features

Crop duration	: 129 days
Nursery age	: 31 days
Height of crop (cm.)	
a) Average	: 137
b) Maximum	: 144
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 24.64
b) Maximum	: 29.2
Number of grains per earhead	
a) Average	: 156
b) Maximum	: 192

### Characteristics of the Grain

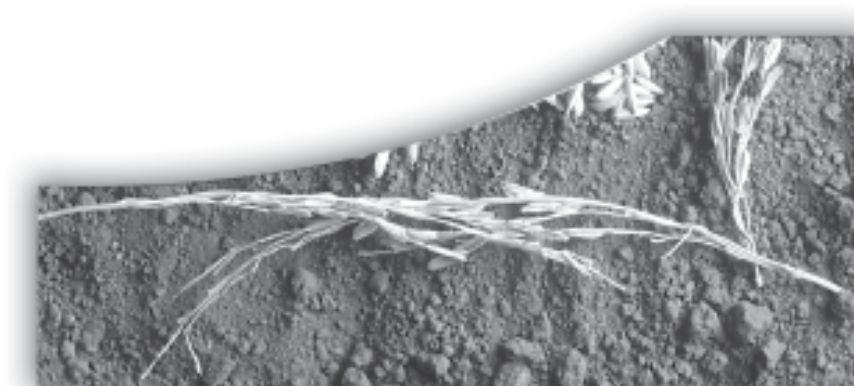
Colour of the grain	: It is light green in the flowering and milky stage and turns into pale yellow in the maturity stage.
Weight of 1000 grains	: 26.565 grams
Colour of rice	: Red
Rice quality	: Coarse

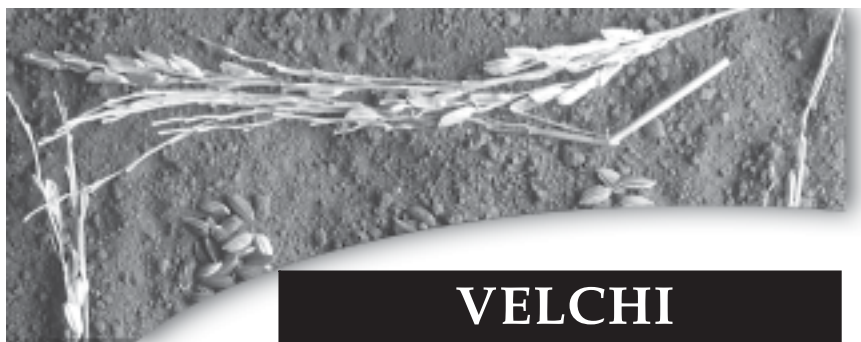
### Yield (per Acre)

Grains	: 16 bags (1200 kgs)
Straw	: 58 bundles (1740 kgs)

### Special Features of the Variety

- ◆ It is ideal for making idli, dosa.





## VELCHI

### Cultivation Aspects

Season	: Navarai
Cultivation method	: Transplantation
Soil type	: Clayey, Sandy clay

### Agronomical Features

Crop duration	: 100 - 105 days
Nursery age	: 25 days
Height of crop (cm.)	
a) Average	: 80.24
b) Maximum	: 84.7
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 19.7
b) Maximum	: 21.5
Number of grains per earhead	
a) Average	: 90
b) Maximum	: 112

### Characteristics of the Grain

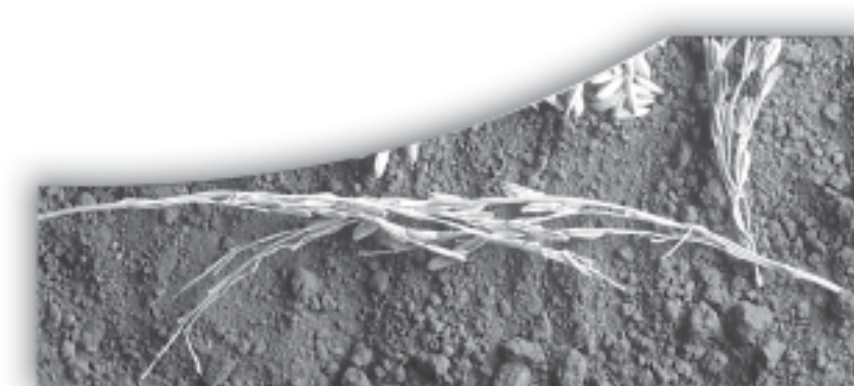
Colour of the grain	: It is light green during flowering and milky stage and on maturity turns into a dark yellowish red colour.
Weight of 1000 grains	: 19.754 grams
Colour of rice	: White
Rice quality	: Fine

### Yield (per Acre)

Grains	: 12 bags (900 kgs)
Straw	: 40 bundles (1200 kgs)

### Special Features of the Variety

- ◆ It is suited for preparation of South Indian meals.





## VELLAI CHITTIRAIKKAR

### Cultivation Aspects

Season	: Navarai
Cultivation method	: Transplantation
Soil type	: Sandy clay

### Agronomical Features

Crop duration	: 120 days
Nursery age	: 28 - 30 days
Height of crop (cm.)	
a) Average	: 104.44
b) Maximum	: 109
Lodging/Non-lodging	: Medium lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 19.48
b) Maximum	: 21.3
Number of grains per earhead	
a) Average	: 110
b) Maximum	: 124

### Characteristics of the Grain

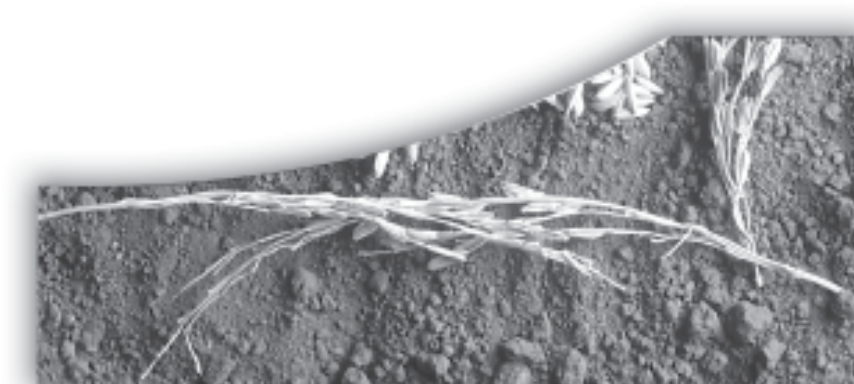
Colour of the grain	: During the flowering and milky stage, it is light green in colour and on maturity turns straw coloured.
Weight of 1000 grains	: 36.994 grams
Colour of rice	: White
Rice quality	: Fine

### Yield (per Acre)

Grains	: 15 bags (1125 kgs)
Straw	: 40 bundles (1200 kgs)

### Special Features of the Variety

- ◆ It is highly suitable for preparing South Indian meals.





## VELLAIK KARIYAN

### Cultivation Aspects

Season	: Samba
Cultivation method	: Transplantation
Soil type	: Sandy clay

### Agronomical Features

Crop duration	: 150 - 155 days
Nursery age	: 40 days
Height of crop (cm.)	
a) Average	: 134.66
b) Maximum	: 141
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 24.1
b) Maximum	: 26.5
Number of grains per earhead	
a) Average	: 162
b) Maximum	: 188

### Characteristics of the Grain

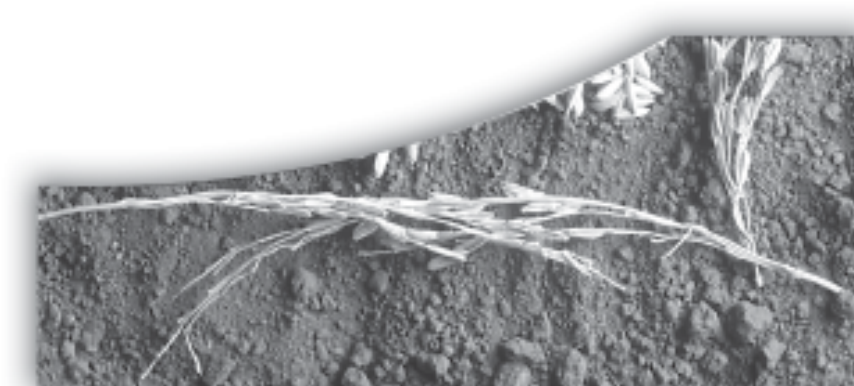
Colour of the grain	: It is light green in the flowering stage, dark green in the milky stage and turns yellow on maturity.
Weight of 1000 grains	: 34.586 grams
Colour of rice	: Red
Rice quality	: Coarse

### Yield (per Acre)

Grains	: 22 bags (1650 kgs)
Straw	: 70 bundles (2100 kgs)

### Special Features of the Variety

- ◆ It is ideal for making idlis.





## VELLAIK KURUVAI

### Cultivation Aspects

Season	: Kuruvai, Navarai
Cultivation method	: Transplantation
Soil type	: Clayey

### Agronomical Features

Crop duration	: 100 - 105 days
Nursery age	: 25 days
Height of crop (cm.)	
a) Average	: 109.64
b) Maximum	: 120
Lodging/Non-lodging	: Lodging

### Characteristics of the Earhead

Length of the earhead (cm)	
a) Average	: 21
b) Maximum	: 26.2
Number of grains per earhead	
a) Average	: 84
b) Maximum	: 142

### Characteristics of the Grain

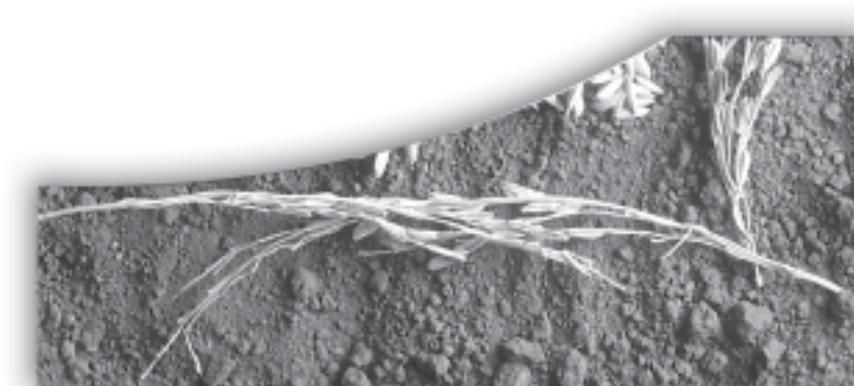
Colour of the grain	: It is light green during the flowering stage, dark green in the milky stage and on maturity turns straw coloured.
Weight of 1000 grains	: 24.424 grams
Colour of rice	: Red
Rice quality	: In between coarse and fine (moderate)

### Yield (per Acre)

Grains	: 14 bags (1050 kgs)
Straw	: 48 bundles (1440 kgs)

### Special Features of the Variety

- ◆ This rice is suitable for the South Indian meal.
- ◆ It is also ideal for making idli, dosa.



## **Centre for Indian Knowledge Systems : A Brief Profile**

### **Objectives**

The Centre for Indian Knowledge Systems is an organisation devoted to exploring and developing the contemporary relevance and applications of traditional Indian knowledge systems - with the focus areas being agriculture and health care. Our aim is to strengthen and revitalize indigenous sciences and practices.

### **Activities**

Some of the major programmes of the centre are :

- Action Research and Training Programmes on various aspects of Organic Farming.
- Setting up of Rural Gene Banks for the conservation of Traditional Seed Varieties.
- Research on the applications of Vrکشayurveda (Traditional Indian Plant Science).
- Setting up of an Organic Farming Resource Centre which would act as a clearing house for information on organic practices.
- Arogyam - a scheme to take organic food grown by farmers to consumers at reasonable prices.
- Training Programmes on the use of Traditional Medicine for various groups.
- Production of Audiovisuals, Publication of Newsletters, Manuals, Posters and Monographs on Traditional Health Care and Traditional Agriculture.

*For further information contact :*

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