Catalogue of Indian Potato Varieties for Export

Pooja Mankar, SK Luthra, VK Gupta, Devendra Kumar, Sanjay Rawal, Mehi Lal, Subhash S, Manoj Kumar & Sanjeev Sharma

PREFACE

Phenomenal achievement of extensive potato research and development, and hard work of potato growers during last seven decades has given confidence to India to knock the doors of global potato market. The nation is trying hard to break the barrier of less than 1% export of total production as potential is enormous. Export of potatoes is possible round the years from different parts of the country. Slowly whole potato supply chain is strengthening and gaining momentum. As many as sixty-nine potato varieties have been developed and popularized by ICAR-CPRI Shimla in past decades. Some of these require stakeholders' attention after focused work by the institute on potato export and feedback of the exporters.

The aim of this catalogue is to provide objective information to the stakeholders interested in potato export. We hope that this catalogue, which is first of its kind will help farmers, exporters as well as the importers to achieve targeted quality production and the raw material.

We would like to thank the Director, ICAR-CPRI, Shimla for his valuable inputs. Also, the information received from stakeholders at various platforms have contributed immensely to this documentation. Whole scientific team involved in the Indian potato export promotion field trials deserves a big applause for their efforts and contributions.

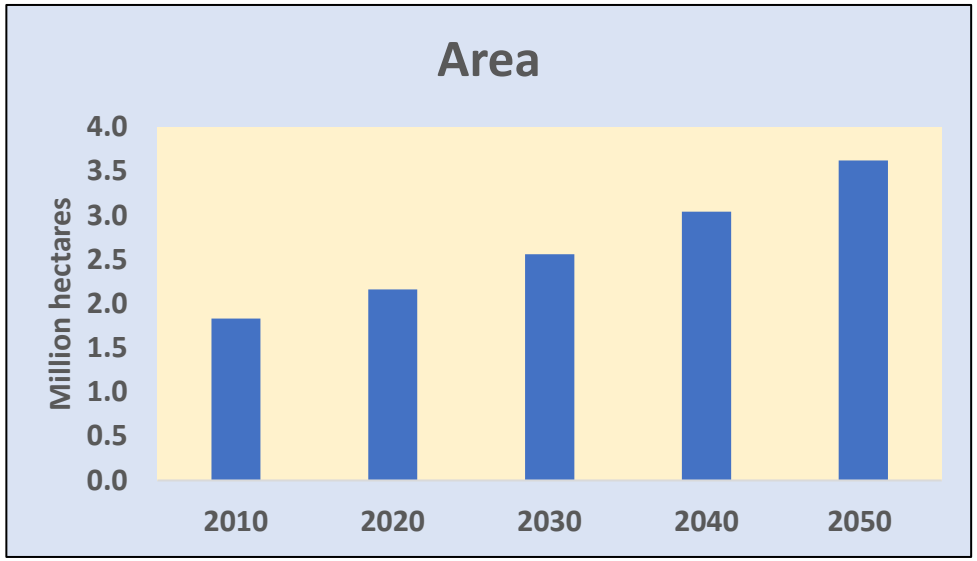
---- AUTHORS

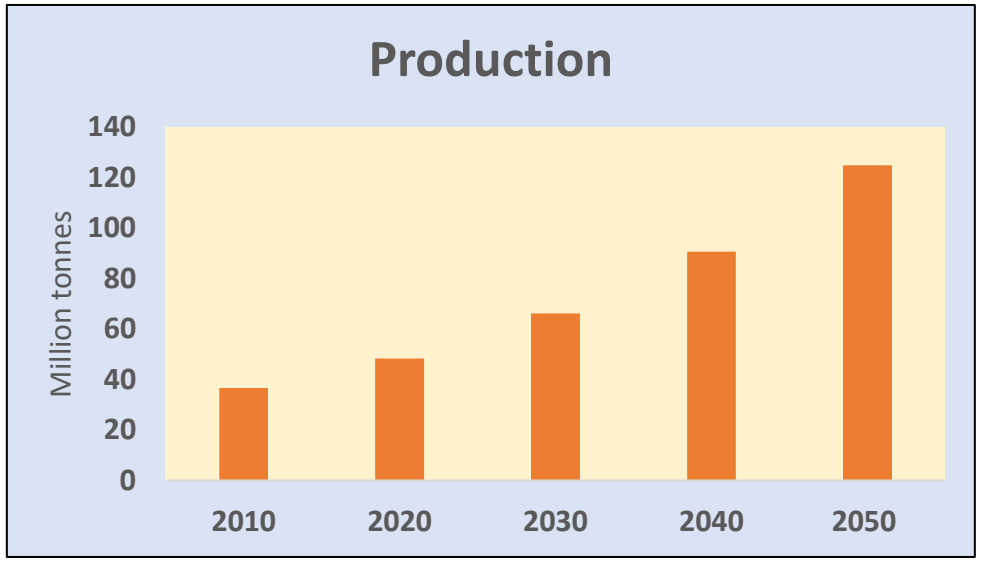
INTRODUCTION

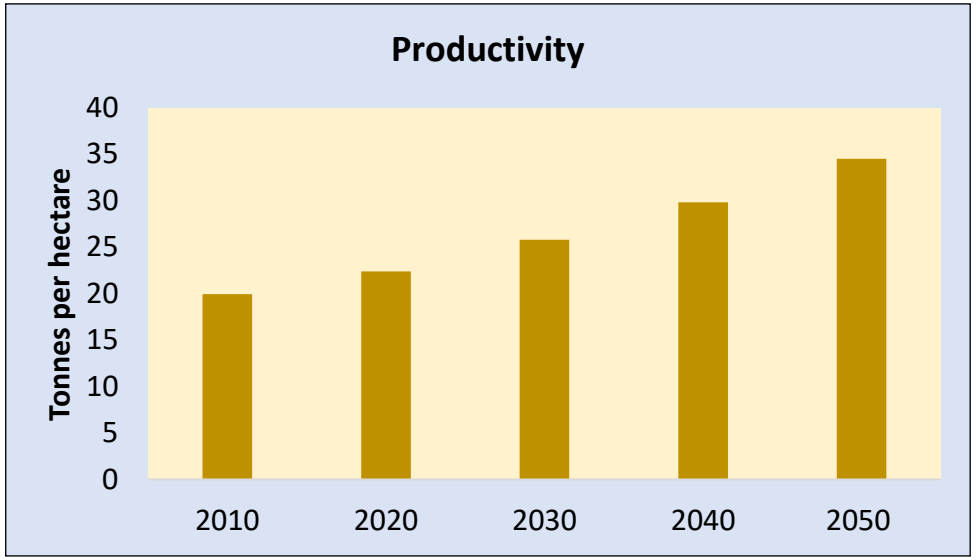
India has moved far ahead from bottom line of forties when the country had small potato area (0.23 Mha), meager productivity (6.59 t/ha) and as a result insufficient production (1.54 MT). Now, the country proudly holds second position on globe as third advance estimate of 2020-21 by the Ministry of Agriculture and Farmers' Welfare has projected potato production of 54.2 MT from 2.25 Mha area with a yield level of 24.1 t/ha, thus contributing around 14.3% in world potato basket. However, the significance of the Indian potato as a brand has yet not been realized in international market as the quantum of potato export is less than 1% of total production. Around 90% of fresh potatoes are harvested in March-April in Indo-Gangetic plains, where frequent glut has been observed during the peak harvesting time leading to price crashes and monetary losses to potato farmers. Lack of proper marketing avenues, insufficient & expensive cold storage facilities, poor condition of supply chain and lower domestic utilization than production are some factors that precipitate a glut situation and produce losses by way of rotting at different stages of its handling. As a result, potato export is neither steady in quantum nor governed by any concrete commitment. So, rigorous policy intervention has long been felt for a semi-perishable and bulky agri-commodity like potato.

Action by the Government of India in launching Agri-export Policy 2018 for a stable trade regime has come at the right point of time with a mission of doubling agricultural exports to around US$ 60b by 2022 and reaching US$ 100b in the next few years. In this, potato has been identified as a potential exportable crop and districts of Agra and Farrukabad in Uttar Pradesh, Indore and Gwalior in Madhya Pradesh, Jalandhar, Hoshiarpur, Kapurthala and Navashehar in Punjab, and Banaskantha and Sabarkantha in Gujarat have been selected initially for potato export promotion. These districts have been identified based on their production, contribution to export, exporters' operation, their potential for upscaling operations, awareness about certification requirements and capacity to achieve export targets in the short term. Export-oriented cluster development in these regions will ensure compliance of potato production with standard physical and quality parameters for establishing a brand in the export market. In past three years, the institute is working for identification and promotion of potential potato varieties suitable for specific international destinations. Good agricultural practices (GAP) based development of agro-technologies is also continuing in different agro-ecologies of the country. Future of potato export is bright in present business ecosystem of India, which is transforming rapidly. This will also help potato growers in sustaining their income a long way.

Indian potato projections for 2050







Source: ICAR-CPRI Vision 2050

Kufri Badshah

Tuber	White-cream, ovoid tubers with shallow eyes and cream flesh
Storability	Good
Consumer & Processing quality	Easy to cook, texture floury, flavour very good, free from after-cooking discoloration; Suitable for table purpose
Adaptability	North Indian plains and plateau
Maturity	Medium
Yield	30-35 tonnes/hectare
Special features	Resistant to early blight, late blight and PVX

Kufri Bahar

Tuber	White-cream, ovoid tubers with medium eyes, white flesh
Storability	Very good
Consumer & Processing quality	Easy to cook, texture mealy, flavour very good, free from after-cooking discoloration; Suitable for table purpose
Adaptability	North Indian plains
Maturity	Medium
Yield	30-35 tonnes/hectare
Special features	Early bulker; Suitable for long distance transportation

Kufri Chandramukhi

Tuber	White-cream, ovoid tubers with shallow eyes and white flesh
Storability	Good
Consumer & Processing quality	Easy to cook, texture floury, flavour very good, free from after-cooking discoloration; Suitable for processing when grown in warmer areas
Adaptability	North Indian plains and plateau
Maturity	Early
Yield	20-25 tonnes/hectare
Special features	Attractive tubers with excellent flavour and taste

Kufri Daksh

Tuber	White-cream, ovoid tubers with shallow-medium eyes, creamy flesh
Storability	Very good
Consumer & Processing quality	Easy to cook, texture intermediate, flavour very good, free from after-cooking discoloration; Suitable for table purpose
Adaptability	North Indian plains and plateau
Maturity	Medium
Yield	30-35 tonnes/hectare
Special features	Water and heat stress tolerance; Moderately resistant to late blight

Kufri Chipsona-3

Tuber	White-cream, ovoid tubers with shallow eyes and white flesh
Storability	Good
Consumer & Processing quality	Easy to cook, texture floury, flavour good, free from after-cooking discoloration, high dry matter, low reducing sugars and phenols; Suitable for making chips and French fries
Adaptability	North Indian plains
Maturity	Medium
Yield	30-35 tonnes/hectare
Special features	Suitable for making chips and French fries

Kufri Chipsona-5

Tuber	White-cream , ovoid tubers with shallow eyes and cream flesh
Storability	Very good
Consumer & Processing quality	Very good taste and aroma, high tuber dry matter content; Acceptable reducing sugars and chip colour; Suitable for making chips
Adaptability	North and Central Indian plains
Maturity	Medium
Yield	35 tonnes/hectare
Special features	Moderately resistant to late blight

Kufri FryOm

Tuber	White oblong tubers with shallow eyes and white flesh
Storability	Very good
Consumer & Processing quality	Very good taste and aroma, high tuber dry matter; Acceptable reducing sugars content; Suitable for making French fries
Adaptability	North and central Indian plains
Maturity	Medium
Yield	35 tonnes/hectare
Special features	Field resistance to late blight and potato virus Y

Kufri Frysona

Tuber	White-cream, long-oblong tubers with shallow eyes and white flesh
Storability	Good
Consumer & Processing quality	Easy to cook, texture floury, flavour good, free from after-cooking discoloration, high dry matter, Low reducing sugars and phenols; Suitable for making French fries
Adaptability	North Indian plains
Maturity	Medium
Yield	30-35 tonnes/hectare
Special features	Suitable for making French Fries

Kufri Himalini

Tuber	White-cream, ovoid tubers with medium-deep eyes and cream flesh
Storability	Good
Consumer & Processing quality	Easy to cook, texture waxy, flavour very good, free from after-cooking discoloration; Suitable for table purpose
Adaptability	North Indian hills
Maturity	Medium
Yield	30-35 tonnes/hectare
Special features	Yield good in hills and plains, possess day-neutrality features

Kufri Jyoti

Tuber	White-cream, ovoid tubers with shallow eyes and cream flesh
Storability	Very good
Consumer & Processing quality	Easy to cook, texture waxy, flavour very good, free from after-cooking discoloration; Suitable for table purpose; Good for processing when grown in warmer areas
Adaptability	Hills, plains & plateau regions
Maturity	Medium
Yield	35-30 tonnes/hectare
Special features	Early bulker with slow rate of degeneration and wider adaptability.

Kufri Ganga

Tuber	White-cream, ovoid tubers with shallow eyes and cream flesh
Storability	Good
Consumer & Processing quality	Easy to cook, texture mealy, flavour good, free from after-cooking discoloration; Suitable for table purpose
Adaptability	North Indian plains
Maturity	Medium
Yield	35-40 tonnes/hectare
Special features	Tolerant to moderate drought conditions

Kufri Lauvkar

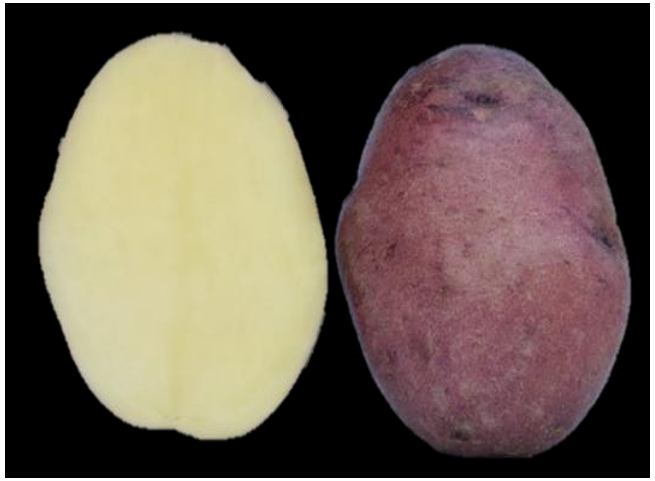
Tuber	White-cream, round tubers with medium deep eyes and cream flesh
Storability	Good
Consumer & Processing quality	Easy to cook, texture mealy, flavour good, free from after-cooking discoloration; Suitable for table purpose; Good for processing when grown in warmer areas
Adaptability	Plateau region
Maturity	Early
Yield	25-30 tonnes/hectare
Special features	Good for processing when grown in warmer areas

Kufri Lohit

Tuber	Attractive red, ovoid tubers with shallow eyes, cream flesh
Storability	Very good
Consumer & Processing quality	Easy to cook, texture mealy, flavour good, free from after-cooking discoloration; Suitable for table purpose
Adaptability	North Indian eastern and central plains
Maturity	Medium
Yield	36-38 tonnes/hectare
Special features	Field resistance to late blight

Kufri Neelkanth

Tuber	Purple, ovoid tubers with shallow eyes, yellow flesh
Storability	Good
Consumer & Processing quality	Easy to cook, texture mealy, flavour good, free from after-cooking discoloration; Suitable for table potatoes
Adaptability	North Indian plains
Maturity	Medium
Yield	35-38 tonnes/hectare
Special features	Antioxidant rich specialty potato variety



Kufri Pukhraj

Tuber	Yellow, ovoid tubers with shallow-medium eyes and yellow flesh
Storability	Good
Consumer & Processing quality	Easy to cook, texture mealy, flavour average, free from after-cooking discoloration; Suitable for table purpose
Adaptability	North Indian plains and plateau region
Maturity	Early to Medium
Yield	35-40 tonnes/hectare
Special features	Early bulker, suitable for low input eco-system

Kufri Sindhuri

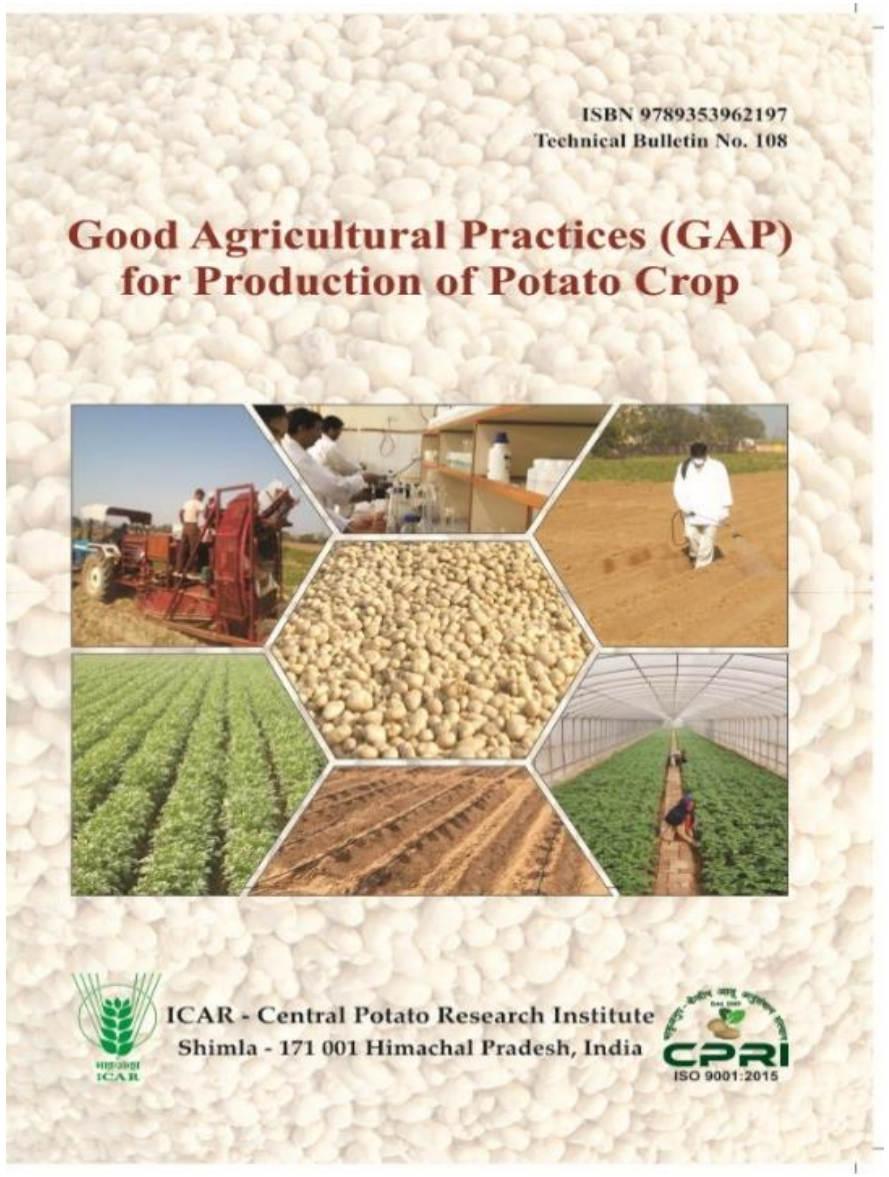
Tuber	Red, round tubers with deep eyes and cream flesh
Storability	Very Good
Consumer & Processing quality	Easy to cook, texture waxy, flavour good, free from after-cooking discoloration; Suitable for table purpose
Adaptability	North Indian plains
Maturity	Late
Yield	30-35 tonnes/hectare
Special features	Suitable for low input eco-system

Kufri Sangam

Tuber	White-cream, ovoid tubers with shallow eyes and white flesh
Storability	Excellent
Consumer & Processing quality	Easy to cook, floury texture, good in taste, moderate to high dry matter; Low reducing sugars and phenols; Suitable for table purpose and processing
Adaptability	North Indian plains and plateau region
Maturity	Medium
Yield	35-40 tonnes/hectare
Special features	Dual purpose as suitable for table as well as for processing purpose

Kufri Uday

Tuber	Red, ovoid tubers with shallow eyes and yellow flesh
Storability	Very good
Consumer & Processing quality	Easy to cook, texture mealy, flavour good, free from after-cooking discoloration; Suitable for table purpose
Adaptability	North Indian plains
Maturity	Early to medium
Yield	36-38 tonnes/hectare
Special features	Field resistance to late blight



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