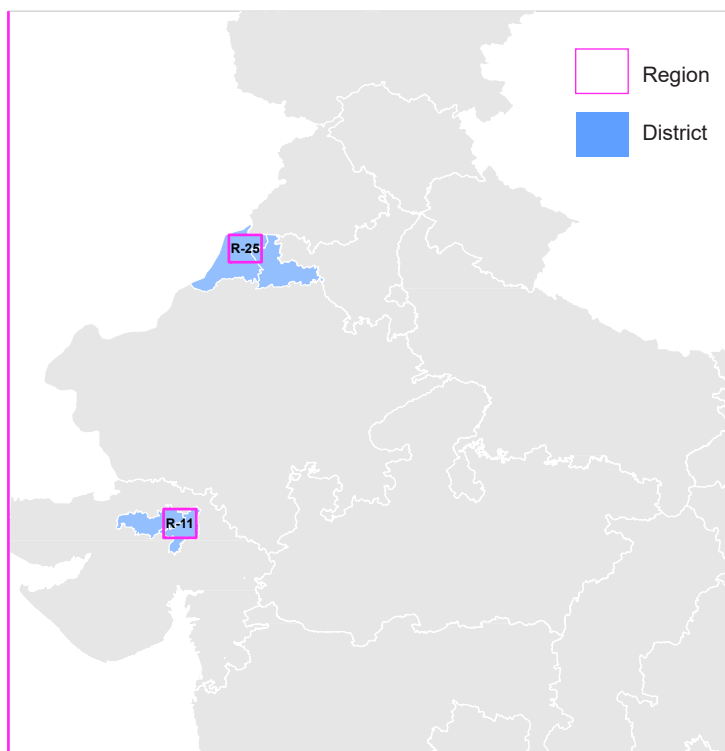


# GUAR SEED



## Focus Regions

Guar Seed is one of the most famous vegetables, popularly known as "Guar" in India. Guar bean is an annual legume crop grown in India since ancient times for vegetable and fodder purposes. It is extensively cultivated in the rainy season and major producing states are Rajasthan, Haryana, Gujarat, Punjab and to a limited extent in Uttar Pradesh and Madhya Pradesh. Rajasthan is the major producer, accounting for nearly 78% of total cluster bean production in India. The crop produces gum also called guar gum, is a galactomannan polysaccharide extracted from guar beans and is well known for its ability to thicken and stabilize food products and hence is also exported in foreign countries. Major export markets are the United States of America, China, Russia, Norway, and Germany.



Metric Tons (MT)					
Region ID.	State	Production	Risk Free Production	Available Production	Available Risk Free Production
R-25	Rajasthan	84,145	73,013	8,415	7,301
R-11	Gujarat	12,806	11,736	1,281	1,174

## Major varieties grown in different agro-climatic zones of India

Agro-climatic zone	State	Region ID.	Major Districts	Varieties
Gujarat Plains and Hills (GPH)	Gujarat	R-11	Mahesana, Patan	Gujarat-1, Gujarat-2, RGC-936, RGC-1002, RGC-1003, RGC-1017, HG-653, HG-884, HG 2-20
Western Dry Region (WDR)	Rajasthan	R-25	Sri Ganganagar, Hanumangarh	RGC-936, RGC-1002, RGC-1003, RGC-1017, HG-653, HG-884, HG-220, RGC-1038, RGC-1031, RGC-1055, RGC-1066



## Seasonal Calendar

The seasonal details are depicted in the calendar by their agro-climatic zones

Agro-climatic zone	Region	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun
GPH	R-11			Kharif										
WDR	R-25			Kharif									Summer	

Note: GPH Gujarat Plains and Hills, WDR Western Dry Region

Sowing Mid season Harvesting



## Contract Summary

A brief overview of the commodity traded in the Agriota E-Marketplace.

Lot ID	LOT03GS03
HSN Code	07133910
Commodity	Guar Seed
Variety	RGC-1002
Grade	Grade-I (Band-III)
Aggregation Unit	Metric Tons (MT)
Minimum Lot Size	6.00 MT
Bid Window Termination	48 Hr
Allowable Lot Variance (+)	0.32 MT
Allowable Lot Variance (-)	0.64 MT
Rights per Lot (No.)	5
Current Lot Size	7.10 MT
Contract Price (Per Unit)	₹ 38,700
Fees	1.00%
Taxes	0.00%
Packaging Size (Per Bag)	50 Kg
Contract Value	₹ 2,77,518
Logistic Hub Location	Pareesh, Market Yard, Unava, Mahesana, Gujarat 384002



## Quality Specifications

Quality by both standard post-harvest parameters and specific biological indicators for better price realisation

Guar Seed		Band - 1	Band - 2	Band - 3	Band - 4	Band - 5
No.	Tradable parameters	721	722	723	724	725
I	Moisture (% by wt)	01.00 - 08.00	08.01 - 09.00	09.01 - 10.00	10.01 - 11.00	11.01 - 12.00
II	Foreign matter (% by wt)	01.00 - 03.00	01.00 - 03.00	01.00 - 03.00	03.01 - 04.00	04.01 - 05.00
III	Admixture/discolored (% by weight)	01.00 - 05.00	05.01 - 08.00	08.01 - 10.00	10.01 - 15.00	15.01 - 20.00



## Dynamic Crop Calendar (DCC)

It is a real-time tool that tracks and forecasts stresses and their severity by commodity, variety and phenophase. The DCC helps estimate crop health, yield and risk for individual fields at various temporal and geo-spatial levels. DCC also helps in customised monitoring, alert generation and advisory activities.

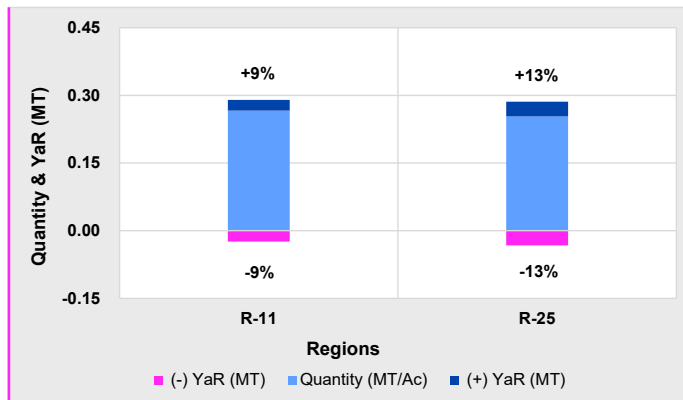
MONTHS	Jul				Aug				Sep				Oct			
WEEK	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
STAGES	Emergence				Vegetative				Flowering				Pod Development			
BIOTIC STRESS					Disease : AB, AT, PM											
					Insect Pest : LPB, SPB, GPB, SM											
ABIOTIC STRESS					Low Temperature $\geq 25^{\circ}\text{C}$				High Temperature $\leq 30^{\circ}\text{C}$							
					Relative Humidity 60% - 70%											

Note: AB Alteria Blight, AT Anthracnose, PM Powdery Mildew, LPB Lycaneid Pod Borer, SPB Spotted Pod Borer, GPB Gram Pod Borer, SM Spider Mite



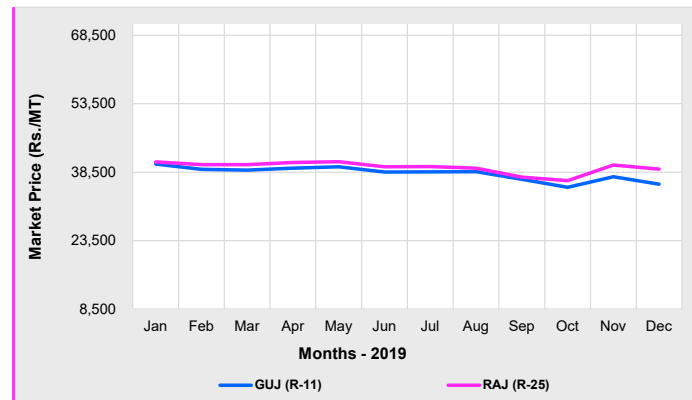
## Yield at Risk (YaR) - Stability

The fluctuation/risk in yield or productivity varies from region to region. The region-wise variation on the yield is depicted in the graph below.



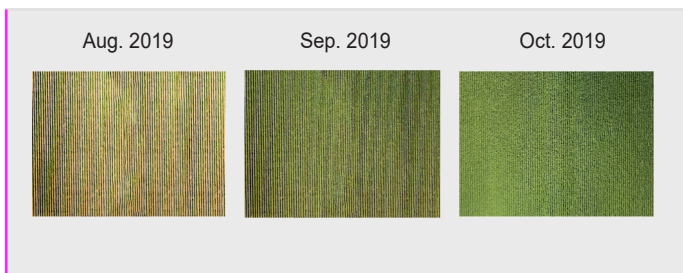
## Price Volatility

The monthly fluctuations in price for different benchmark markets are shown below.



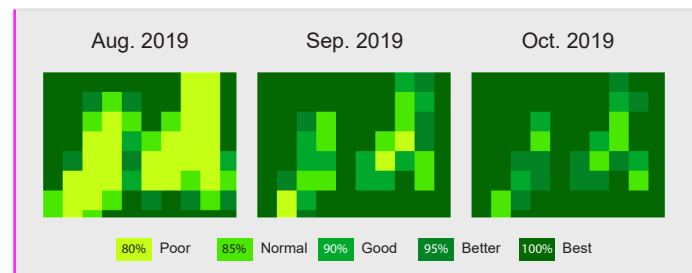
## Aerial Photo

Aerial photo provides the visual representation of a the field periodically.



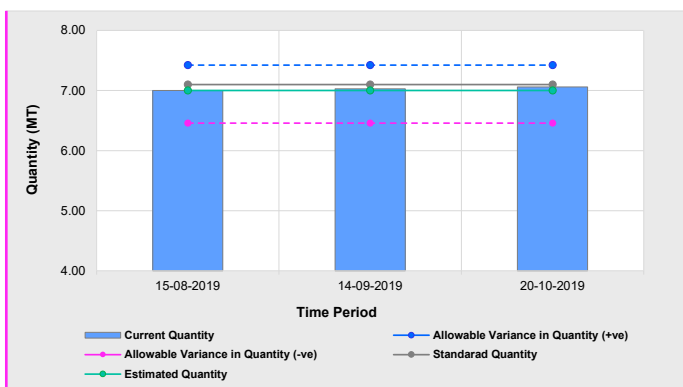
## Multispectral Yield Analysis

Tool that provides a Normalised Differential Vegetation Index (NDVI) analysis of individual fields to ground-truth indices. It is standardised across time periods for quick visual interpretation.



## Ground-Truth Risk Report

Real-time estimation of yield and its threshold at various stages of crop growth, based on field monitoring of plant health and detection of stress.



## Multispectral Analysis

Normalised Differential Vegetation Index (NDVI) comparison of field versus regional indices across commodity, variety and phenophase.

