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Growth performance and contribution of different contract foundation paddy seed agencies in Haryana

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Abstract

Foundation seed is the first generation seed from breeder seed. The study pertains to Haryana state. The growth performance and magnitude of change of foundation paddy seed production was analyzed fitting the exponential function and C.V. to the data and the growth performance of HSDC, CSF, NSE, CCSHAU, IFFCO and KRIBHCO in foundation seed was poor but in case of private sector was very high. Moreover, the growth performance of total foundation paddy seed in the state was found to be significant. The growth performance of government sector in foundation paddy seed was computed to be 4.8 and showing declining trend. The growth rate of private sector in foundation paddy seed was computed to be 14.2 and overall growth rate was to be 12.9 percent per annum and statistically significant over the period of 196-97-2006-07.the contribution of government sector in foundation paddy seed was decreased and the contribution of private sector in foundation paddy seed was s increase. The rule and regulation of W.T.O. encouraged the active participation of private sector in the seed business in the state.

Key words:Paddy, foundation seed, growth performance and contribution

Introduction

Today seed industries and technologies are being involved to ensure the continuous supply of high quality seeds of crop plants to farmers. Since agriculture being a biological industry, its success depends upon use of good quality seed, and the pace of progress in food production will largely depend upon the spread with which high quality seeds of agricultural crops are generated and made available to the farmers when required. One of the quickest and easiest ways of increasing the agricultural productivity is to harness the higher and better quality yield offered by improved crop seeds.

Haryana is strategically important for seed production due to assured irrigation and ranks 4th in paddy productivity after Punjab, Tamil Nadu and Andhra Pradesh and ranks 11thin production in the country (CMIE, 2002). Contract farming can be defined as a system for the production and supply of agricultural produce under forward contracts, the essence of such contracts being a commitment to provide an agricultural commodity of a type, at a time and price and in quality required by a known buyer. It basically involves four things-pre-agreed price, quality, quantity or acreage (minimum/ maximum) and time.

Foundation seed is the first generation seed from breeder seed; usually produce under contract by a Foundation Seed Organization. It is labeled with white tag. Foundation seed is a vital link between the breeder's seed produced under the control of the plant breeder and the certified seed produce by the seed growers. It is the seed stock from which registered or certified seeds are produce. Foundation seed may be grown by private association of seed growers, through a special project within an experimental station or university, or by a private seed company. Only the best seed growers with the right combination of experience, appropriate land, infrastructure facilities and ability are accepted as foundation seed growers. The supply of foundation seed should not exceed the demand, which call for advance planning.

After the initiation of new economic Policy, there is an influx of large number of seed companies both indigenous and multinational in nature are operating in the state. Paddy seed production by government agencies and private seed firms are flourishing in the state. Hence it becomes of paramount improvement to analyze the growth performance and contribution of different contract foundation paddy seed production agencies in the state in lieu of the liberalization, globalization and privatization of policies introduced

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in the country to cope with changing global scenario. The study would be useful for researchers, planners and policy makers in the formation of policies for overall development of seed industry.

Methodology

The present study makes use of secondary data for the period of 1996-67 to 2006-07. Secondary data of foundation paddy seed were collected from the annual report of the Haryana Seed Development Corporation and the Haryana State Seed Certification Agency. For computing the trend in production of foundation paddy seed, the compound growth rate analysis was employed by fitting exponential type of function.

The equation of the exponential function is :-

$Y=a.b^t$

Where,

Y= area /production /productivity

t=Time variable in years

a= Intercept indicating Y in the base period (t=0)

b= Regression coefficient

As:

Log y = Log a+ t log b

The compound growth rate (CGR) has been calculated as:

CGR (%) = (Anti log b-1) x100

To know the magnitude of variation among the observation, coefficient of variation of average excepted production and actual production obtained were calculated with the help of following formula:

$$C.V. = \frac{S.D.}{Mean} \times 100$$

Where,

S.D. is standard deviation and mean is arithmetic mean

Simple tabular and conventional percentage analysis was use for determining contribution of different agencies in total contract foundation paddy seed production in the state.

Results and Discussion

Agencies-wise and sector-wise, growth rates of total foundation paddy seed production in the state was estimated and shown by the Table 1.

Table 1 shows the compound growth rates of HSDC, CSF, NSC, CCSHAU, IFFCO and KRIBHCO were 2.7, 0.2, 11.8, 2.1, -10.7 and -4.6 percent per annum, respectively and it was found statistically non-significant and their R^2 value came to 0.072, 0.000, .191, 0.316, 0.170, and 0.387 respectively. The compound growth rate of government sector in total foundation paddy seed was observed to be 4.8 per cent per annum over a decade and found statistically non-significant and its R^2 value was .212. It could be concluded that overall growth performance of government sector in foundation paddy seed was poor and showing declining trend in total foundation paddy seed over a period of last 11 years due to miss-management, apathetic attitude of government officials towards seed growers and lack of transparent policy. The growth rate of private sector was to be 14.2 percent per annum and found statistically significant and its R^2 value was 0.628. It could be concluded that growth performance of private sector in total foundation cereals seed was found satisfactory over a period of last 11 years. The overall growth rate of total foundation paddy seed in the state was 12.9 percent and its R^2 value was 0.652. It could be concluded that the growth performance of overall foundation paddy seed in the state was satisfactory, mainly due to private sector progress.

Agencies-wise and sector-wise contribution in total foundation paddy seed production in the state was estimated and shown by the table 2.

Table 2 showed the contribution of HSDC was 6.22% in 1996-97 and drastic reduction in contribution

Table 1: Agencies-wise and sector-wise, growth rate of total foundation paddy seed production in the state during 1996-97 to 2006-07

Agencies/sectors	R^2	F	Sig F	B_0	B_1	CGR%	C.V.%
HSDC	0.072	0.698	0.425	89.67	0.027	2.7	31.18
CSF	0.000	0.000	0.984	125.19	0.002	0.2	113.59
NSC	0.191	2.129	0.179	63.14	0.118	11.8	68.30
CCSHAU	0.316	4.165	0.072	5.17	0.021	2.1	12.57
IFFCO	0.170	1.846	0.207	29.70	-0.107	-10.7	60.58
KRIBHCO	0.387	5.691	0.041	11.88	-0.046	-4.6	25.10
OTHERS	0.276	3.423	0.097	12.10	0.083	8.3	85.17
GOVT. SECTOR	0.212	2.418	0.154	367.92	0.048	4.8	34.15
PVT. SECTOR	0.628	15.174	0.004	1951.96	0.142	14.2	42.49
TOTAL	0.652	16.851	0.003	2376.16	0.129	12.9	39.17

Where,

HSDC =Haryana Seed Development Corporation CSF = Central Seed Farm

CCSHAU = Choudhry Charan Singh Haryana Agricultural university Hassar

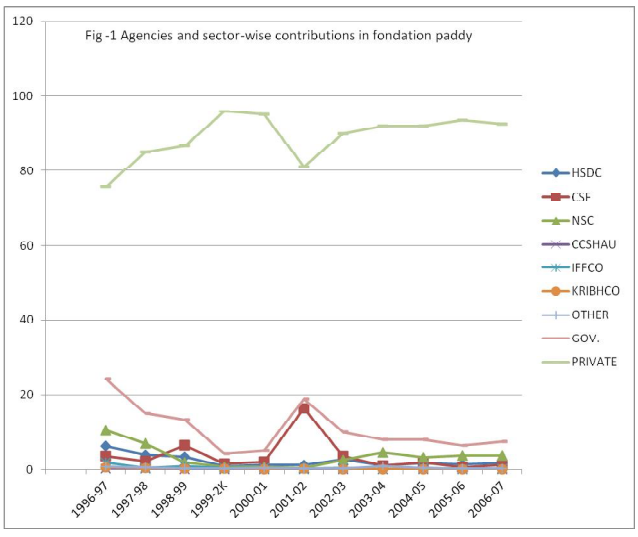
NSC = Nation Seed Corporation IFFCO = Indian Farmers Fertilizer Cooperative Ltd

KRIBHCO= Kirshi-Bharti Cooperative Ltd

Table 2: Agencies wise and sector-wise, contribution in total foundation paddy seed production in the state during 1996-97 to 2006-07 (in percentage)

YEAR	GOVT. SECTOR								PVT. SECTOR	TOTAL
	HSDC	CSF	NSC	CCSHAU	IFFCO	KRIBHCO	OTHER	TOTAL		
1996-97	6.22	3.68	10.52	0.33	2.02	0.66	0.79	24.20	75.80	100
1997-98	4.02	2.28	7.01	0.22	0.47	0.47	0.55	15.02	84.98	100
1998-99	3.41	6.49	1.89	0.13	0.95	0.24	0.32	13.43	86.57	100
1999-2K	0.96	1.54	0.82	0.07	0.37	0.21	0.24	4.21	95.79	100
2000-01	1.23	2.15	0.70	0.10	0.40	0.13	0.35	5.05	94.95	100
2001-02	1.23	16.35	0.51	0.15	0.20	0.19	0.30	18.93	81.07	100
2002-03	2.81	3.53	2.65	0.11	0.42	0.14	0.33	9.98	90.02	100
2003-04	1.18	1.15	4.56	0.06	0.02	0.07	0.97	8.01	91.99	100
2004-05	1.77	1.99	3.26	0.09	0.39	0.12	0.36	7.97	92.04	100
2005-06	1.48	0.63	3.77	0.09	0.10	0.11	0.25	6.42	93.58	100
2006-07	1.69	1.30	3.81	0.09	0.20	0.11	0.29	7.49	92.51	100

of HSDC in total foundation paddy seed in the state and has declined up to 1.70 per cent in 2006-07. The contribution of CSF in total foundation paddy seed in the state in 1996-97 was 3.68 per cent and had reduced up to 1.30 per cent in the year 2006-07. The contribution of NSC in total foundation paddy seed in the state in 1996-97 was 10.68 per cent and its share went down drastically and reached up to 3.81 per cent in 2006-07. The contribution of CCSHAU in total foundation paddy seed in the state in 1996-97 was 0.33 per cent and its share went down up to 0.09 per cent in the year 2006-07. The contribution of IFFCO in total foundation paddy seed in the state in 1996-97 was 2.02 per cent and its share went down up to 0 .20 per cent in 2006-07. The contribution of KRIBHCO in total foundation paddy seed in the state in 1996-97 was 0.66 per cent and its share went down up to 0 .12 per cent in 2006-07. The contribution of government sector was nearly 24.20 in 1996-97 percent; its contribution went down drastically in 2006-07 up to 7.49 per cent. The contribution of private sector in total foundation paddy seed production was 75.80 per cent in 1996-97 and had increased up to 92.51% in 2006-07 (shown in fig.-1). The farmers attached with government sector were only getting seed in the form of technology and incentive price at the rate of 33.33 per cent more on procurement price up to 2005. But government reduced the label of incentive price from 33.33 per cent to 22.5 per cent on procurement after 2005 whereas farmers attached with private sector were getting all sports of technology viz. pesticides, fertilizers and seed etc. the responsibilities of seed certification from the HSSCA and getting seed testing from seed testing laboratory and payment of their whole lot at the time of procurement of seed at seed processing plant. So here farmers attached with private sector were free from complexities of both input and output market.



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