



Yield gap analysis of adopted and non-adopted pomegranate orchards of Maharashtra, Karnataka and Andhra Pradesh

Based on: Abridged Progress Report: 2008-09 to 2010-11 & Progress report Apr, 2011-Oct, 2012

(Network Project on Mitigating the Bacterial Blight Disease of Pomegranate in Maharashtra, Karnataka and Andhra Pradesh, Funded by Ministry of Agriculture, Government of India, New Delhi)

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Website : [http//www.nrpomegranate.org](http://www.nrpomegranate.org)

Introduction: Bacterial Blight of pomegranate is now manageable with the adoption of Integrated Disease and Pest management Schedule (IDIPM) and an economic return can be harnessed from a blight affected orchards. In order to substantiate the results obtained from the adoption of IDIPM schedule, an yield gap analysis was done, taking into consideration the yield obtained from adopted (orchards managed with IDIPM schedule) and non adopted orchards (farmer's practice) from the same area. Generally, a yield gap is understood to be the difference of a given potential (or maximum) yield for a given crop/cultivar at a given location and actual yields realized by farmers for a given year or a reference climate period (climatic potential yield)

Table 1. Year-wise yield (tonnes/ha.) of adopted and non-adopted pomegranate orchards

Name Of the Institution	Maharashtra									
	Potential Yield	IDIPM Schedule* (IDIPM)			Farmers Practice (FP)			% yield increase 2008-09	% yield increase 2009-10	% yield increase 2011-13
		2008-09	2009-10	2011-13	2008-09	2009-10	2011-13			
ICAR-NRCP	30.00	22.3	7.50	10.63	8.00	0.00	0.00	178.75	--	--
	30.00	12.49	7.50	6.36	8.00	0.00	2.10	56.13	--	202.86
	30.00	9.70	17.00	1.69	9.00	14.9	5.18	7.78	14.09	-67.37
	30.00	10.60	9.03	2.30	3.00	3.36	0.76	253.33	168.75	202.63
	30.00	16.00	10.65	4.07	0.00	0.68	0.00	--	1466.18	--
VNMKV, Parbhani	30.00	5.75	8.05	3.58	3.20	5.75	2.10	79.69	40.00	70.48
	30.00	4.80	7.55	4.25	2.95	4.83	2.10	62.71	56.31	102.38
	30.00	4.55	6.54	6.80	2.70	4.1	4.00	68.52	59.51	70.00
MPKV, Rahuri	30.00	6.50	8.20	15.00	4.00	2.75	7.50	62.50	198.18	100.00
	30.00	8.80	8.50	16.00	4.15	2.83	4.00	112.05	200.35	300.00
	30.00	8.50	8.30	18.00	5.10	3.1	8.00	66.67	167.74	125.00
	30.00	6.15	7.80	14.00	6.00	2.5	4.50	2.50	212.00	211.11
	30.00	6.18	8.10	3.50	5.45	4	5.00	13.39	102.50	-30.00

[illegible]

Table 2. Yield obtained from adopted and non-adopted pomegranate orchards of Maharashtra, Karnataka and A.P.

Year	Maharashtra				Karnataka				Andhra Pradesh			
	IDIPM	FP	Yield Gap	% increase in yield	IDIPM	FP	Yield Gap	% increase in yield	IDIPM	FP	Yield gap	% increase in yield
2008-09	9.41	5.75	3.66	63.7	7.60	3.07	4.53	147.6	11.12	9.34	1.78	19.1
2009-10	8.83	3.49	5.34	153.0	6.98	2.20	4.78	217.3	11.16	9.42	1.74	18.5
2011-13	10.12	4.24	5.88	138.7	10.82	3.6	7.22	200.6	10.23	7.62	2.61	34.25
Average	9.45	4.49	4.96	118.47	8.47	2.96	5.51	188.50	10.84	8.79	2.04	23.95

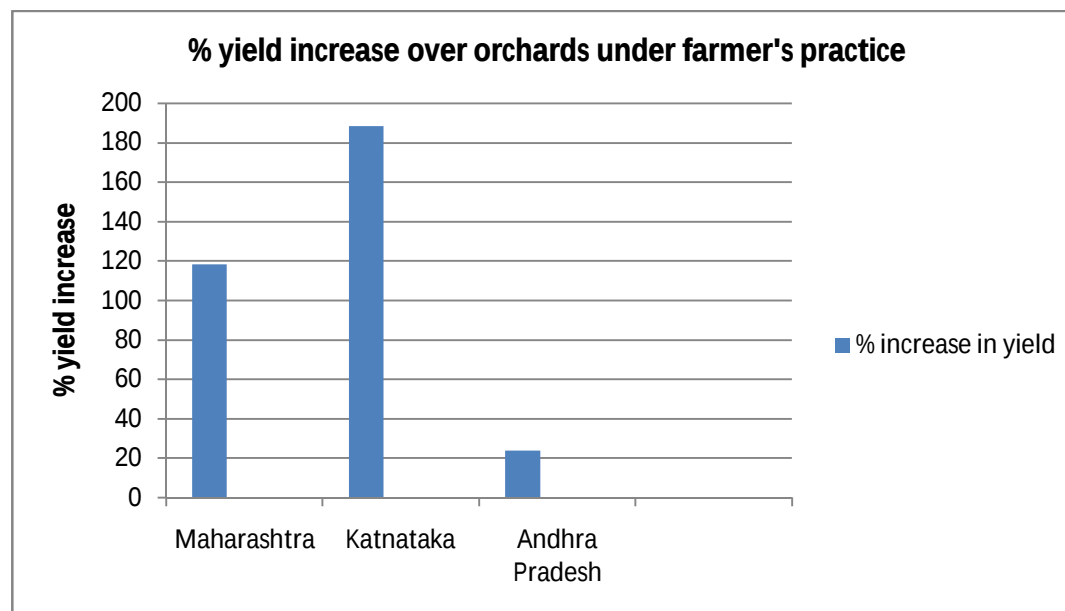


Figure 1. Impact of IDIPM schedule on yield increment in blight affected orchards

Table 3. Yield obtained from adopted and non-adopted pomegranate orchards of Maharashtra, Karnataka and A.P.

Year	Potential Yield (PY)	Maharashtra				Karnataka				Andhra Pradesh			
		IDIPM	FP	Yield Gap (PY-IDIPM)	Yield Gap (PY-FP)	IDIPM	FP	Yield Gap (PY-IDIPM)	Yield Gap (PY-FP)	IDIPM	FP	Yield Gap (PY-IDIPM)	Yield Gap (PY-FP)
2008-09	30.00	9.41	5.75	20.59	24.25	7.60	3.07	22.40	26.93	11.12	9.34	18.88	20.66
2009-10	30.00	8.83	3.49	21.17	26.51	6.98	2.20	23.02	27.80	11.16	9.42	18.84	20.58
2011-13	30.00	10.12	4.24	19.88	25.80	10.82	3.60	19.18	26.40	10.23	7.62	19.77	22.38



Plate 1. Yield from adopted orchards



Plate 2. Yield from orchard under farmer's practice

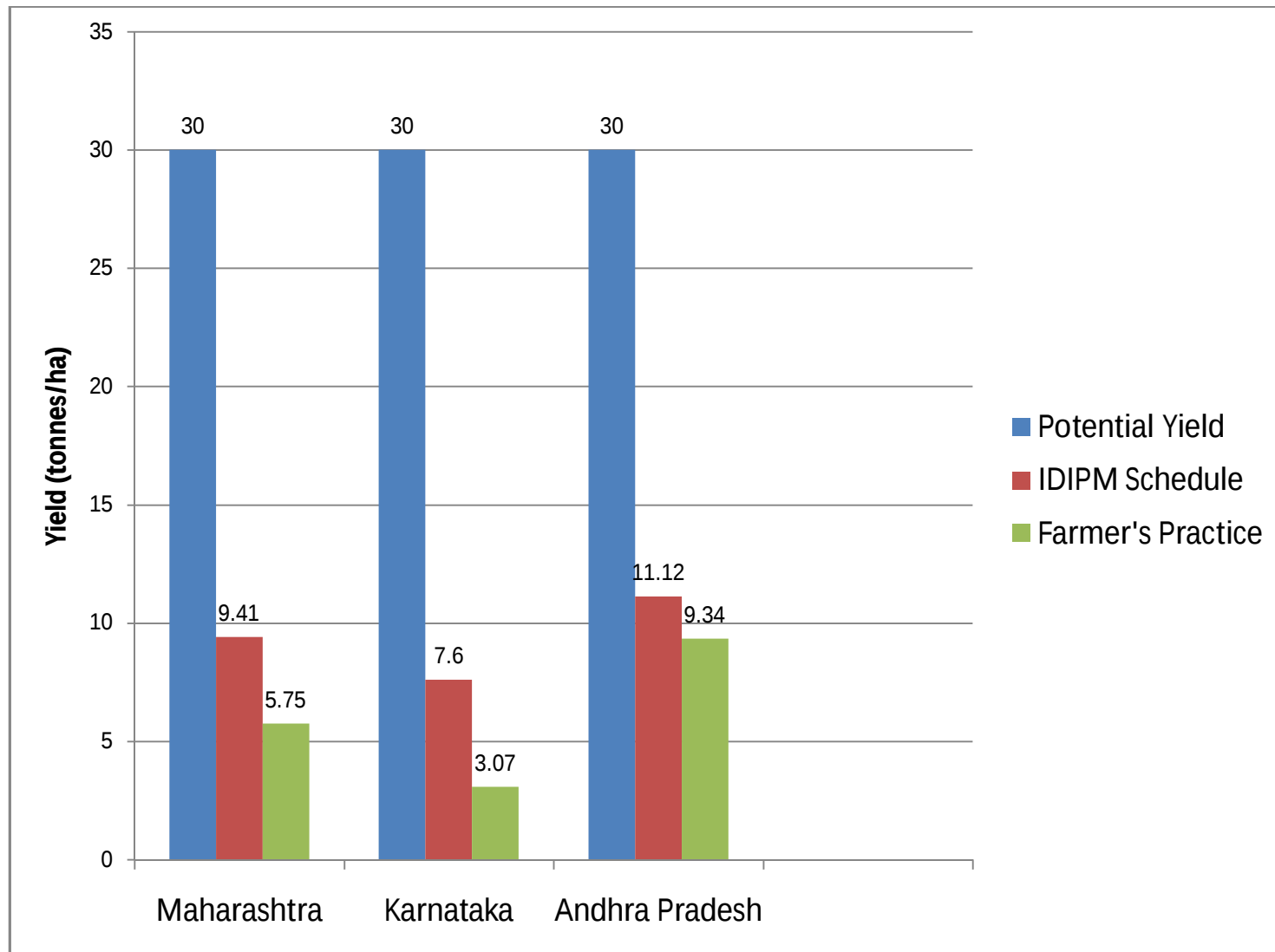


Figure 2. Yield gap analysis of adopted and non-adopted pomegranate orchards in 2008-09

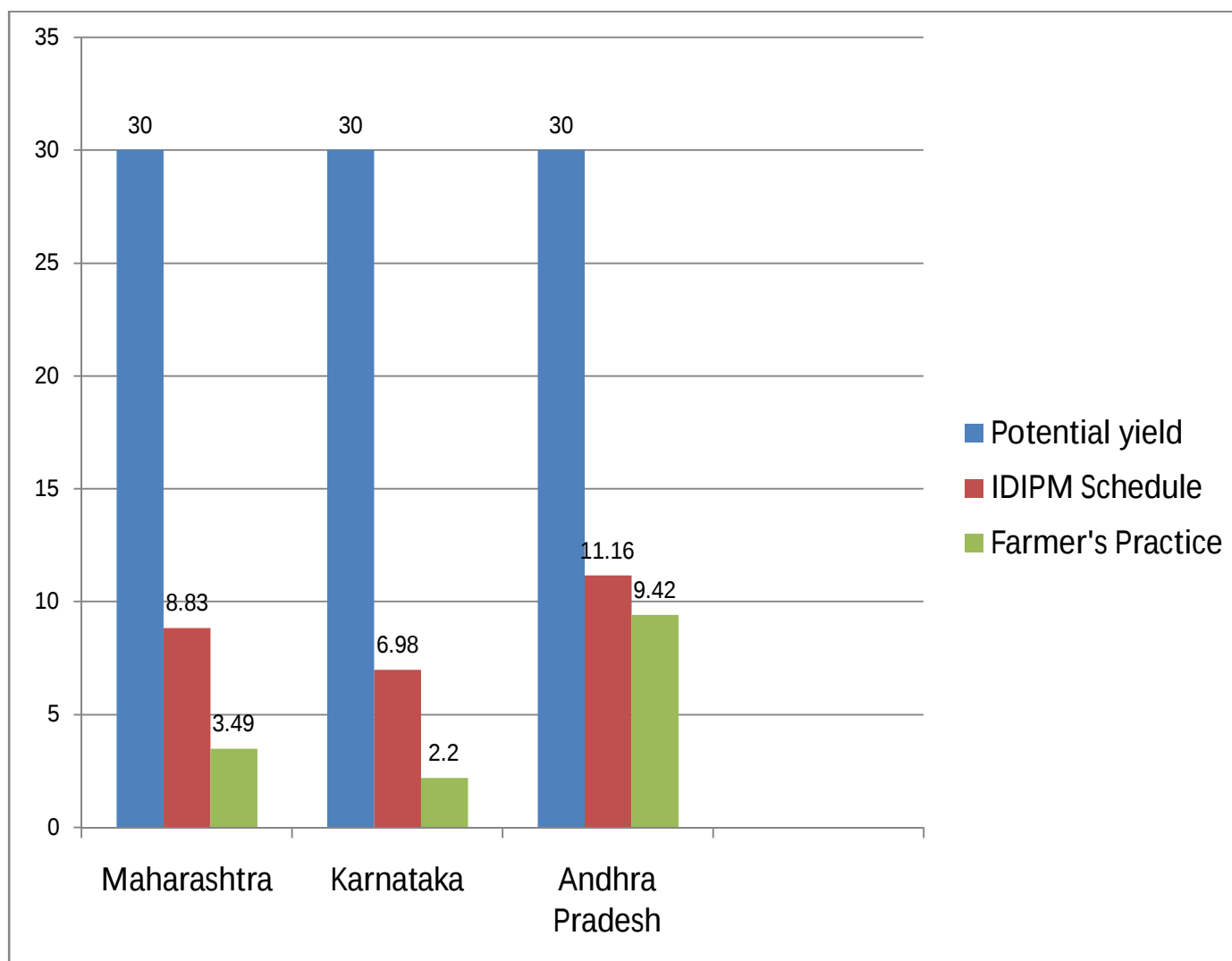


Figure 3. Yield gap analysis of adopted and non-adopted pomegranate orchards in 2009-10

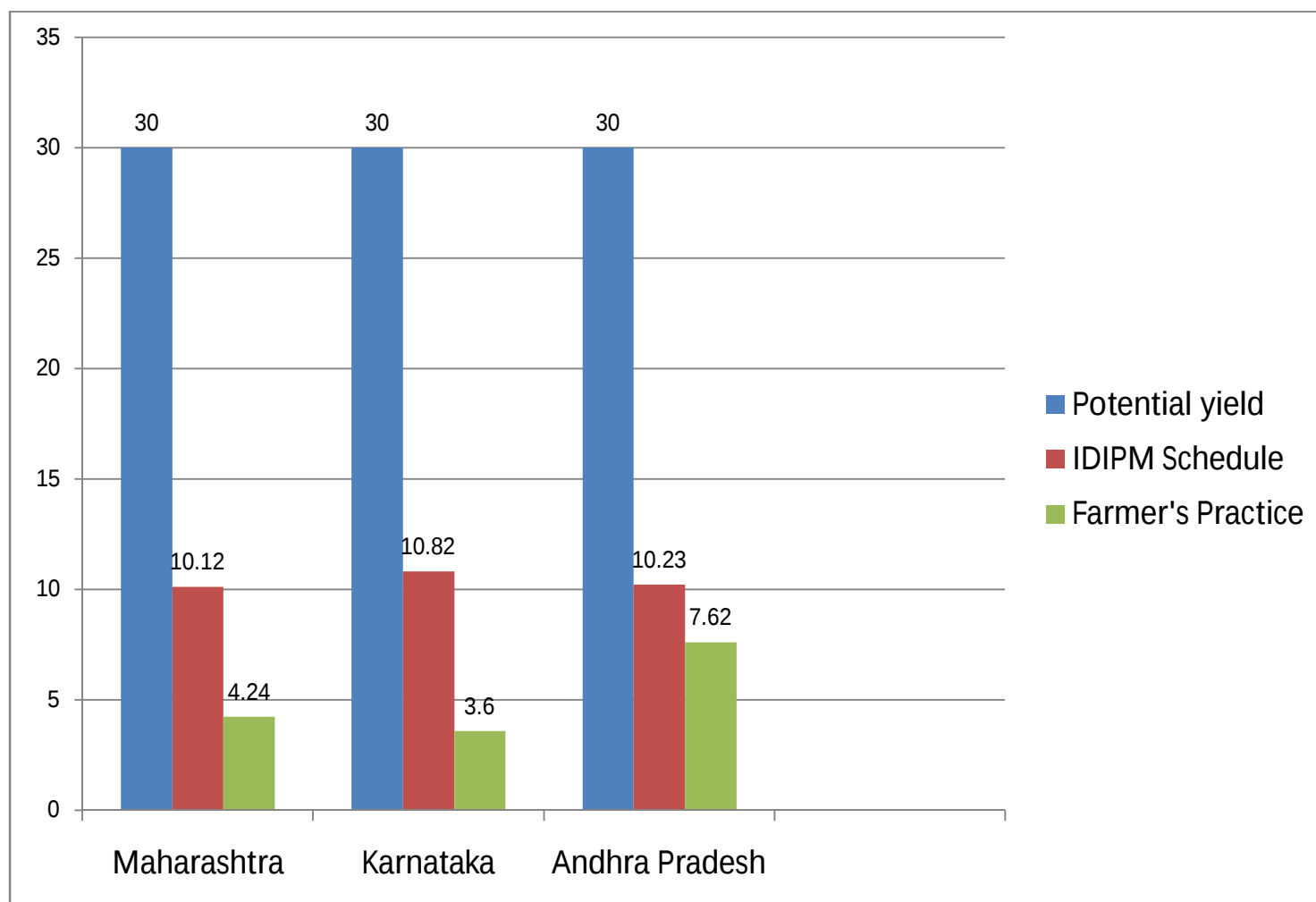


Figure 4. Yield gap analysis of adopted and non-adopted pomegranate orchards in 2011-13



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