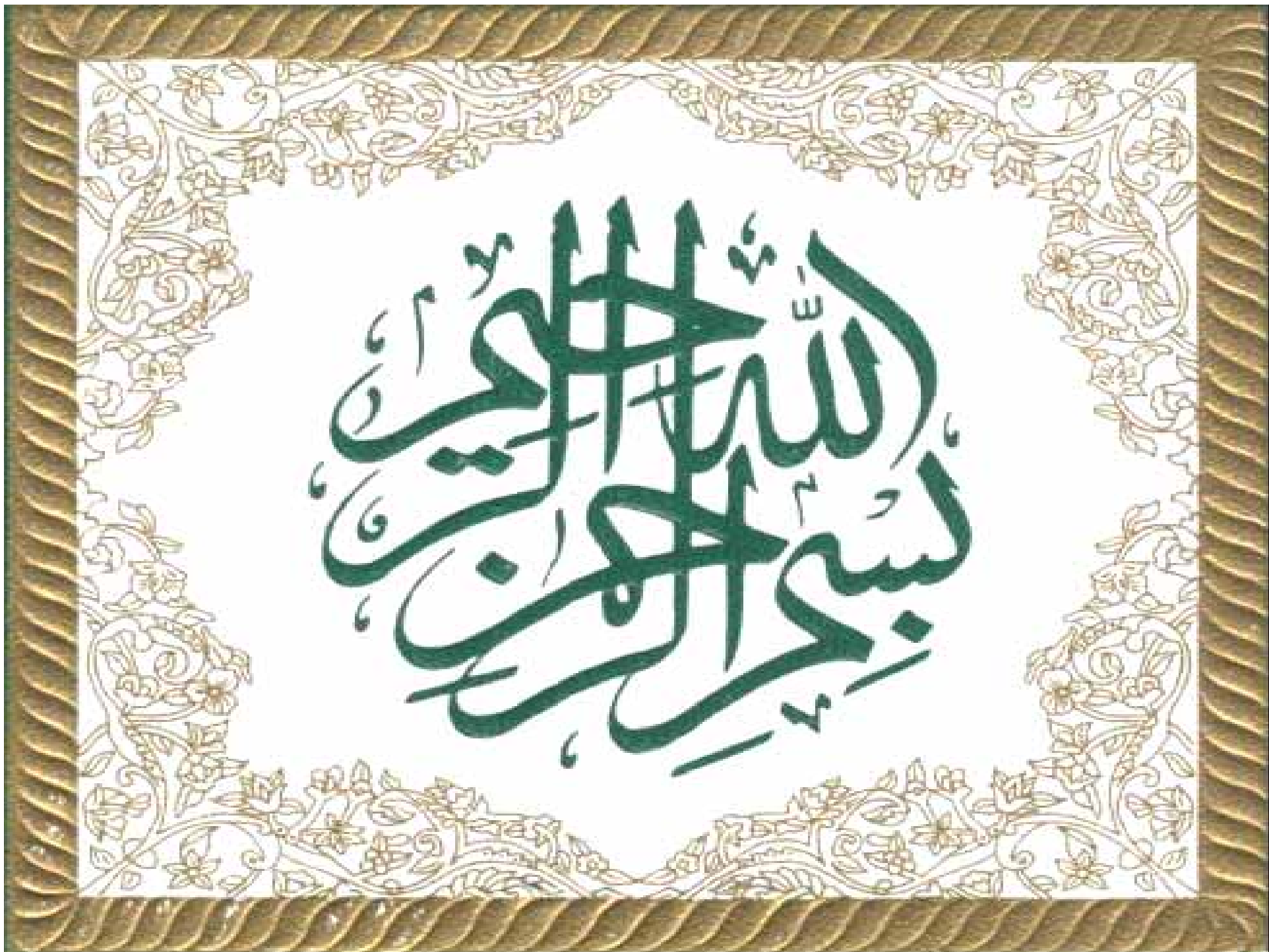
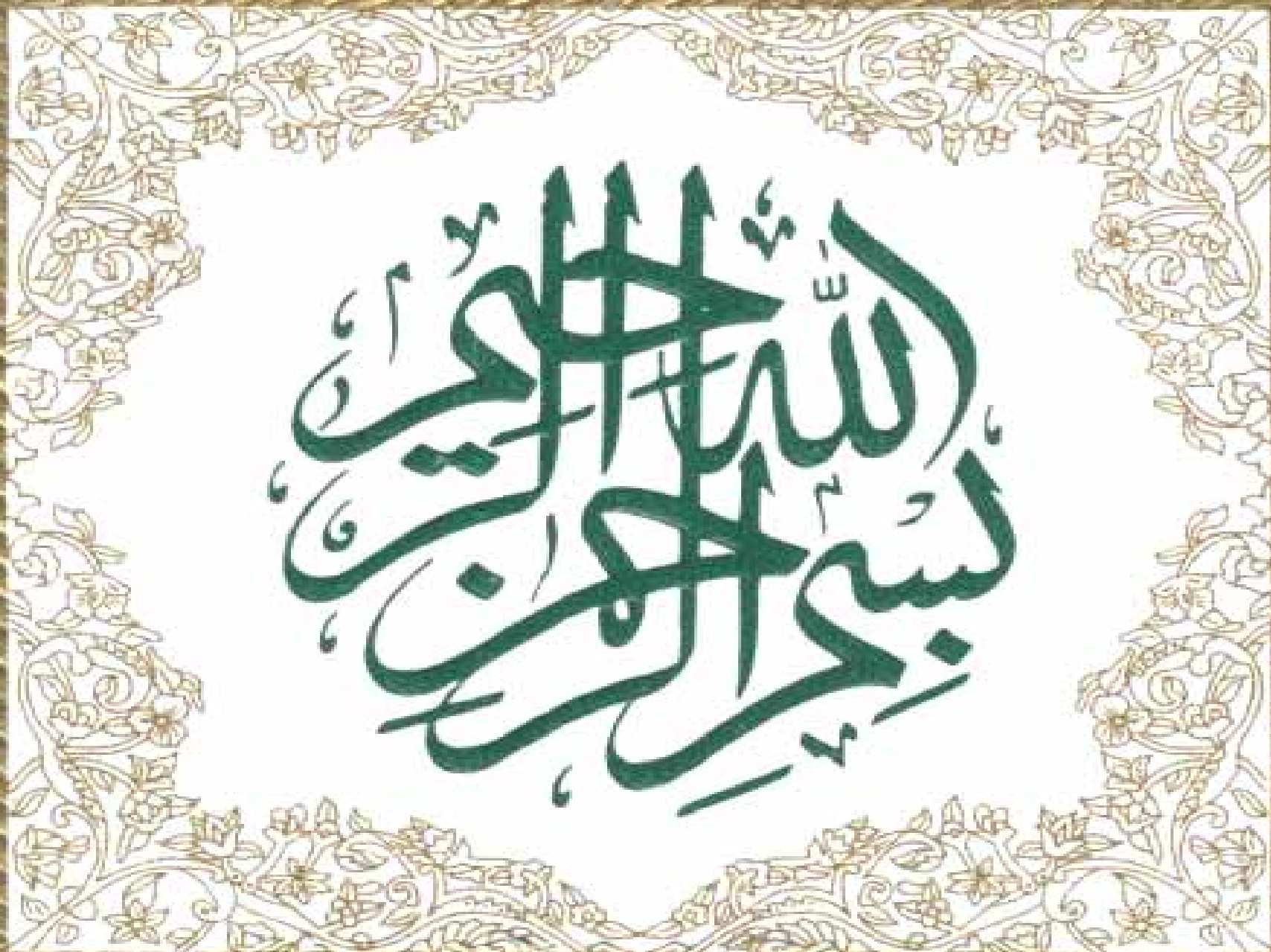
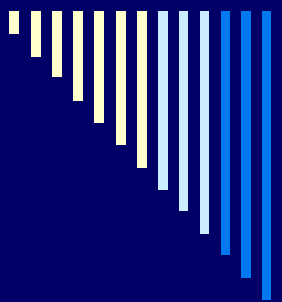


بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ





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# MANGO EXTENSION SYSTEMS IN PAKISTAN

By

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# AGRICULTURE EXTENSION SYSTEM





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# AGRI. EXT. EDUCATION SYSTEMS

- Traditional Extension education system (upto 1977)
- T&V Ext. education system (upto 1997)
- Modified T&V system (upto 2005)
- Participatory approach system (onward)



# MANGO AREA AND PRODUCTION IN PUNJAB

S/No.	Year	Area ('000' hectares)	Production ('000' tons)
1	1990-91	48	501
2	1991-92	48	508
3	1992-93	45	510
4	1993-94	45	550
5	1994-95	48	581
6	1995-96	47	599
7	1996-97	48	602
8	1997-98	48	586
9	1998-99	48	583
0	1999-00	48	604
11	2000-01	43	635
12	2001-02	51	650
13	2002-03	54	684



# MANGO AREA AND PRODUCTION IN SINDH

S/No.	Year	Area ('000' hectares)	Production ('000' tons)
1	1990-91	37	267
2	1991-92	37	269
3	1992-93	37	271
4	1993-94	40	274
5	1994-95	39	285
6	1995-96	40	292
7	1996-97	40	294
8	1997-98	43	312
9	1998-99	43	315
0	1999-00	44	321
11	2000-01	45	343
12	2001-02	46	372
13	2002-03	47	336



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# CONSTRAINTS

- ➔ Policy
- ➔ Technical
- ➔ Transfer of technology
- ➔ Weather Ailments



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# POLICY

- ☞ Policing Policies on major crops
- ☞ Mango was not the priority of
  - (a) Government
  - (b) Department
  - (c) Farmer

## **Recommendation:**

1. Policy switch over from major crop to value added crops
2. Establishment of special Mango Extension Services
3. Establishment of supply chain linkage



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# TECHNICAL

## **AGRONOMY**

Soil Management

- (a) Use of inputs
- (b) Quality Nursery Plants
- (c) Irrigation

### **Recommendation:**

1. Soil & Leaf Analysis
2. Avoid Intercropping
3. Establishment of Gene Pool
4. Certified Fruit Plant Nurseries
5. Irrigation Schedule



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# TECHNICAL

## PLANT PROTECTION

- (a) Insects
- (b) Diseases
- (c) Weeds
- (d) Pesticides

### Recommendation:

1. Establishment of Diagnostic Labs
2. Study on effect of pH on pesticides efficacy
3. I.P.M.



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# TECHNOLOGY TRANSFER

- Lack of improved knowledge
- Non availability of highly trained human resources
- Limited training facility for technical staff
- Lack of resources/funds
- Misleading Technical Services
- Poor feedback
- Weak linkage among stake holders
- Limited research expertise



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# TECHNOLOGY TRANSFER..

## Recommendation:

1. Development of Linkages among stake holders
2. Establishment of website
3. Holding farmer days at critical stages at Tehsil level



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# MARKETING

- ☞ Defective picking, packing and post harvest processing
- ☞ Lack of Storage and transport facilities
- ☞ Role of middle man
- ☞ No Export facility
- ☞ No marketing mechanism

## **Recommendation:**

1. Access to marketing information
2. Facilitation to avoid post harvest losses
3. Establishment of Export processing zone
4. Cargo service for Export



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# WEATHER AILMENTS

- Temperature
- Wind
- Rain Fall
- Frost
- Hail Storm

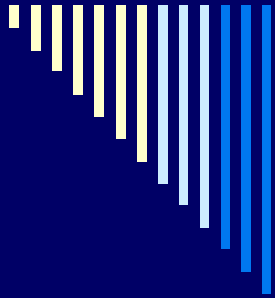
**Recommendation:**

Pray Almighty Allah



# EXTENSION DEVELOPMENT PROGRAMMES ON MANGO

- Research on fruit crops (1997-2000)
- Rejuvenation of mango orchards (2000-2003)
- Fruit & Vegetable Development Project Punjab (2005-2009)



# INTERVENTIONS

1. Calendar of production technology
2. Demonstration of the technology
  - Method and time of irrigation
  - Method and time of fertilizer application
  - Inner sanitation of plants
  - Management of pests
  - Weed control
  - Proper harvesting
  - Use of micronutrient
  - Production of certified nursery plant





















## AVERAGE INCREASE IN YIELD AND SALE PRICE OF MANGO DEMONSTRATION ORCHARDS

Sr. No.	District	No. of Orchards	% Increase in Average Yield Over Base Year	% Increase in Sale Price Over Base Year
1	Multan	60	46	33
2	Khanewal	60	92	36
3	Rahim Yar Khan	60	90	49
4	Muzaffargarh	30	63	71
5	Bahawalpur	20	33	37
6	Vehari	10	44	50
7	Lodhran	10	70	133
8	Sahiwal	10	61	25
9	Rajanpur	10	36	28
10	Bahawalnagar	10	-	72



God Bless Us

Thank You