Supporting Information

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Table S1. Descriptive statistics for 1,655 plots and 533 associated households (averages for 2002–2004 and 2006–2008)

	2002–2004		2006–2008	
Plot or household information	Conventional	Bt	Conventional	Bt
Plot level information				
Seed cost (1,000 Rs/acre)	0.51 (0.26)	1.60*** (0.43)	0.47 (0.21)	0.91*** (0.32)
Seed rate (g/acre)	659.82*** (552.39)	490.72 (114.23)	646.64*** (474.33)	570.75 (160.93)
Irrigation (share of plots)	0.46 (0.50)	0.58*** (0.49)	0.48 (0.50)	0.59* (0.49)
Fertilizer (t/acre)	0.23 (0.15)	0.26*** (0.16)	0.20 (0.10)	0.25*** (0.15)
Pesticide (1,000 Rs/acre)	2.27*** (1.80)	1.43 (1.57)	1.07 (1.21)	1.07 (1.38)
Labor (d/acre)	70.72 (32.30)	83.23*** (40.81)	63.12 (35.74)	69.75 (44.67)
Yield (kg/acre)	520.64 (315.54)	705.40*** (360.41)	588.85 (318.66)	829.03*** (341.08)
Cotton price (Rs/kg)	19.67 (3.06)	19.52 (2.69)	20.07 (4.87)	23.31*** (4.05)
Revenue (1,000 Rs/acre)	10.22 (6.36)	13.79*** (7.32)	12.41 (7.48)	19.35*** (8.42)
Total cost (1,000 Rs/acre)	6.62 (3.07)	7.65*** (2.94)	7.10 (3.34)	9.03*** (5.12)
Profit (1,000 Rs/acre)	3.60 (5.80)	6.14*** (6.89)	5.31 (6.80)	10.32*** (7.73)
No. of plots	601	298	64	692
Household level information				
Age of farmer (y)	44.24 (12.49)	44.43 (12.47)	48.14** (12.52)	45.18 (12.67)
Education of farmer (y)	7.29 (4.97)	8.04** (4.81)	4.73 (5.08)	7.32*** (5.15)
Land owned (acres)	13.25 (15.45)	15.07* (18.42)	11.48 (12.28)	11.61 (12.68)
Cotton area (acres)	6.99 (37.12)	6.20 (6.73)	4.42 (4.51)	5.79** (4.60)
Household size (head)	6.46 (3.46)	6.75 (3.80)	6.59 (3.38)	6.28 (4.07)
Expenditures (1,000 Rs/y)	85.87 (71.01)	122.76*** (79.00)	87.90 (64.14)	90.43 (88.82)
No. of households	363	222	61	432

*, **, *** imply that the mean value is significantly higher than that of conventional/Bt in the same time period at the 10%, 5%, and 1% level, respectively. Mean values are shown with SDs in parentheses. Household expenditures were deflated using the consumer price index. Rs, Indian Rupees.

Table S2. Estimated coefficients of quadratic production (yield) function

Explanatory variables	Pooled-data model 1	Fixed-effects models 2	3
Inputs			
Bt (dummy)	156.46*** (21.85)	125.90*** (20.41)	116.91*** (20.68)
Bt 2006–2008 (dummy)	31.62 (44.79)	3.59 (43.46)	180.06*** (20.54)
Seed rate (g/acre)	0.54** (0.02)	−0.004 (0.03)	−0.01 (0.03)
Sow date (d)	0.23 (0.40)	−0.85** (0.42)	−0.86** (0.44)
Harvest date (d)	1.16*** (0.27)	1.03*** (0.29)	−0.08 (0.25)
Irrigation (yes/no)	139.75*** (15.80)	97.26*** (19.35)	83.00*** (0.00)
Fertilizer (t/acre)	70.61 (135.43)	1.29 (144.01)	−29.08 (149.13)
Square of fertilizer	844.08** (351.59)	558.55 (358.62)	646.46* (371.64)
Pesticide (1,000 Rs/acre)	20.62 (13.17)	1.72 (14.24)	−8.91 (13.58)
Square of pesticide	−1.85 (2.91)	−1.86 (2.94)	−1.52 (3.03)
Labor (d/acre)	4.44*** (0.55)	5.11*** (0.69)	4.83*** (0.72)
Square of labor	−0.01*** (0.003)	−0.02*** (0.01)	−0.01** (0.01)
Fertilizer-pesticide interaction	−72.08*** (27.31)	−35.28 (27.95)	−38.85 (28.97)
Fertilizer-labor interaction	−1.77 (1.22)	−2.91** (1.35)	−3.23** (1.39)
Pesticide-labor interaction	0.14 (0.13)	0.17 (0.14)	0.29** (0.14)
Household characteristics			
Age of farmer (y)	−2.34*** (0.65)		
Education of farmer (y)	−0.29 (1.55)		
Cotton experience of farmer (y)	0.62 (0.91)		
Karnataka	−9.89 (20.64)		
Andhra Pradesh	19.43 (20.87)		
Tamil Nadu	−193.54*** (40.79)		
2004	103.94*** (19.91)	125.39*** (17.68)	
2006	235.41*** (41.42)	297.03*** (40.53)	
2008	128.01*** (44.64)	208.61*** (43.68)	
Constant	−130.12 (82.19)	−104.19 (83.07)	287.23*** (69.10)
No. of observations	1648	1648	1648
R^2	0.38	0.39	0.34
Hausman test		90.47***	70.00***

*, **, ***, Coefficient is statistically significant at the 10%, 5%, and 1% level, respectively. The model in column 1 is based on comparisons of plots both within and between households. Columns 2 and 3 are based on comparisons of plots within households (household fixed effects). The dependent variable in all three models is cotton yield in kilogram per acre. Coefficient estimates are shown with SEs in parentheses. The reference year is 2002. The Hausman test results show that fixed-effects are preferred over random-effects specifications. Rs, Indian Rupees.

Table S3. Estimated coefficients of quadratic profit function

Explanatory variables	Pooled-data model 1	Fixed-effects models 2	3
Inputs			
Bt (dummy)	1,595.67* (847.63)	1,877.21** (889.16)	2,151.51** (893.33)
Bt 2006–2008 (dummy)	1,485.88 (1,087.64)	−260.45 (1,144.58)	1,736.39** (803.31)
Seed rate (g/acre)	0.72 (0.47)	0.09 (0.63)	−0.07 (0.63)
Sow date (d)	−4.56 (8.47)	−18.37* (9.59)	−19.92** (9.72)
Harvest date (d)	14.26** (5.73)	13.72** (6.73)	−2.36 (6.15)
Irrigation (yes/no)	2,922.27*** (318.20)	2,087.24*** (439.54)	2,027.25*** (442.23)
Seed price (Rs/450 g)	0.71 (0.70)	0.16 (0.76)	−0.35 (0.76)
Cotton price (Rs/kg)	812.81*** (64.91)	814.17*** (71.21)	615.53*** (53.88)
Fertilizer price (Rs/kg)	−286.88*** (90.49)	−361.04*** (98.40)	−340.12*** (99.74)
Square of fertilizer price	6.37*** (1.98)	8.39*** (2.21)	7.58*** (2.24)
Pesticide price (Rs/L)	0.60 (0.43)	0.05 (0.48)	0.53 (0.47)
Square of pesticide price	0.0001 (0.0001)	0.0002* (0.0001)	0.0001 (0.0001)
Wage rate (Rs/h)	138.38 (136.08)	−74.12 (152.33)	230.42 (145.12)
Square of wage rate	−10.50* (6.00)	−3.27 (9.37)	−23.84*** (8.84)
Fertilizer-pesticide price interaction	−0.10*** (0.02)	−0.09*** (0.02)	−0.09*** (0.02)
Fertilizer-labor price interaction	18.45 (13.78)	3.20 (15.66)	7.45 (15.83)
Pesticide-labor price interaction	−0.01 (0.03)	0.02 (0.04)	−0.00004 (0.04)
Household characteristics			
Age of farmer (y)	−45.37*** (13.71)		
Education of farmer (y)	5.43 (32.59)		
Cotton experience of farmer (y)	2.12 (19.25)		
Karnataka	997.04** (428.77)		
Andhra Pradesh	−757.56* (412.86)		
Tamil Nadu	−2,331.92*** (825.00)		
2004	1,454.26*** (464.90)	2,066.07*** (466.18)	
2006	2,093.82** (933.78)	5,006.86*** (1,017.09)	
2008	−1,389.82 (1,064.79)	2,332.61** (1,149.50)	
Constant	−15,530.24*** (2,276.21)	−14,554.41*** (2,268.62)	−6,492.66*** (1,676.44)
No. of observations	1648	1648	1648
R^2	0.35	0.38	0.36
Hausman test		42.39***	24.60**

*, **, ***, Coefficient is statistically significant at the 10%, 5%, and 1% level, respectively. The model in column 1 is based on comparisons of plots both within and between households. Columns 2 and 3 are based on comparisons of plots within households (household fixed effects). The dependent variable in all three models is cotton profit in Indian Rupees (Rs) per acre. Coefficient estimates are shown with SEs in parentheses. The reference year is 2002. The Hausman test results show that fixed-effects are preferred over random-effects specifications.

Table S4. Estimated coefficients of household consumption expenditure function

Explanatory variables	Pooled-data model 1	Fixed-effects model 2
Bt area (acres)	2,636.22*** (925.83)	197.65 (1,227.07)
Bt area 2006–2008 (acres)	428.85 (973.06)	2,825.65** (1,196.64)
Cotton area (acres)	104.81 (69.19)	41.55 (74.10)
Cultivated area (acres)	1,374.32*** (147.68)	1,123.82*** (229.72)
Household size (AE)	13,735.91*** (807.15)	9,255.51*** (1,259.57)
Age of farmer (y)	564.98*** (134.82)	
Education of farmer (y)	1,832.08*** (344.70)	
Karnataka	−2,048.50 (4,211.89)	
Andhra Pradesh	35,430.50*** (4,283.91)	
Tamil Nadu	39,745.87*** (7,346.99)	
2004	14,234.28*** (4,556.09)	19,433.01*** (4,543.11)
2006	−406.97 (5,179.06)	1,257.58 (5,653.66)
2008	3,957.18 (5,237.25)	9,250.43 (5,937.91)
Constant	−58,234.18*** (8,787.57)	15,250.02** (6,663.66)
No. of observations	1,431	1,431
R^2	0.43	0.17
Hausman test		35.50***

, *, Coefficient is statistically significant at the 5% and 1% level, respectively. The model in column 1 is based on comparisons within and between households. Column 2 is based on comparisons within households (household fixed effects). The dependent variable in both models is annual household consumption expenditures in Indian Rupees. Household expenditures were deflated using the consumer price index. Coefficient estimates are shown with SEs in parentheses. The reference year is 2002. AE, adult equivalents.