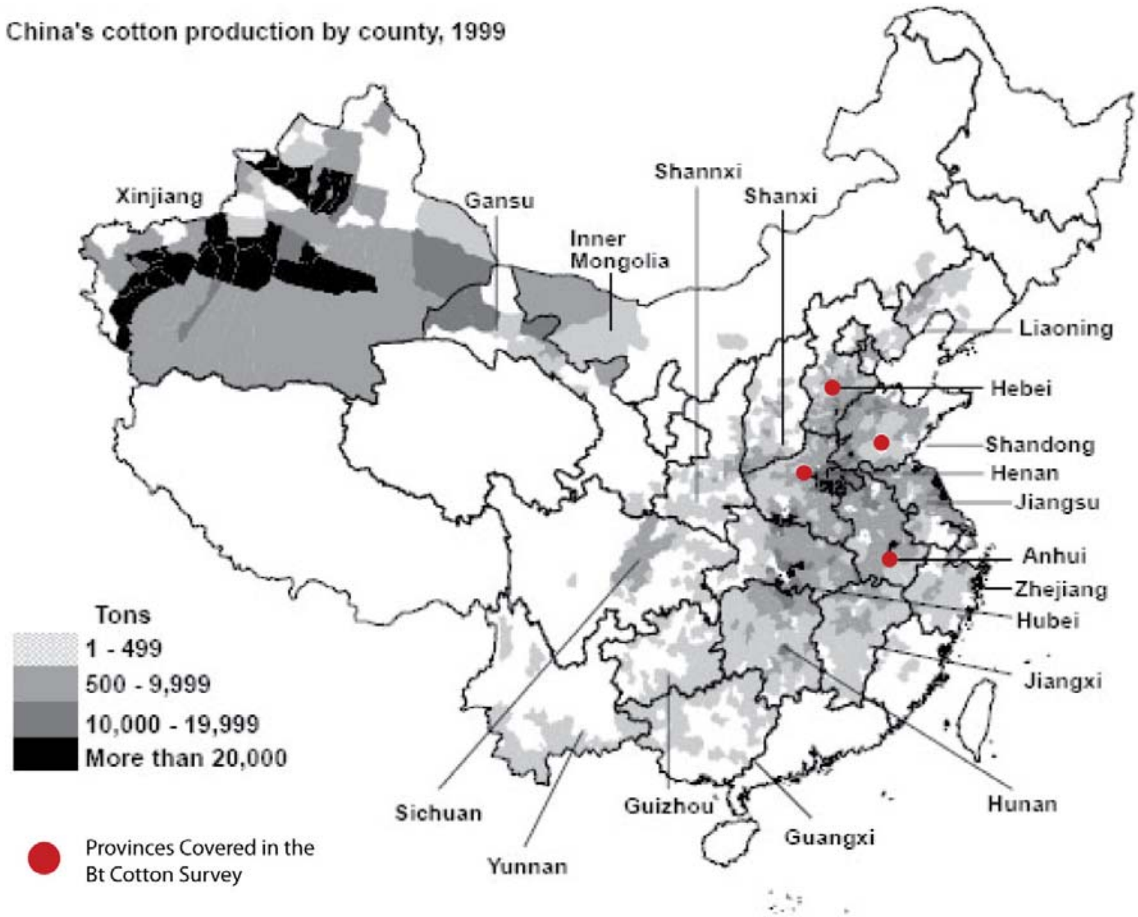
Appendix 1



Source: *China Rural Statistical Yearbook*, 2000.

Appendix 2

Record Sheet

Series 1

	A	B
1	20 Yuan if ①②③ 5 Yuan if ④⑤⑥⑦⑧⑨⑩	34 Yuan if ① 2.5 Yuan if ②③④⑤⑥⑦⑧⑨⑩
2	20 Yuan if ①②③ 5 Yuan if ④⑤⑥⑦⑧⑨⑩	37.5 Yuan if ① 2.5 Yuan if ②③④⑤⑥⑦⑧⑨⑩
3	20 Yuan if ①②③ 5 Yuan if ④⑤⑥⑦⑧⑨⑩	41.5 Yuan if ① 2.5 Yuan if ②③④⑤⑥⑦⑧⑨⑩
4	20 Yuan if ①②③ 5 Yuan if ④⑤⑥⑦⑧⑨⑩	46.5 Yuan if ① 2.5 Yuan if ②③④⑤⑥⑦⑧⑨⑩
5	20 Yuan if ①②③ 5 Yuan if ④⑤⑥⑦⑧⑨⑩	53 Yuan if ① 2.5 Yuan if ②③④⑤⑥⑦⑧⑨⑩
6	20 Yuan if ①②③ 5 Yuan if ④⑤⑥⑦⑧⑨⑩	62.5 Yuan if ① 2.5 Yuan if ②③④⑤⑥⑦⑧⑨⑩
7	20 Yuan if ①②③ 5 Yuan if ④⑤⑥⑦⑧⑨⑩	75 Yuan if ① 2.5 Yuan if ②③④⑤⑥⑦⑧⑨⑩
8	20 Yuan if ①②③ 5 Yuan if ④⑤⑥⑦⑧⑨⑩	92.5 Yuan if ① 2.5 Yuan if ②③④⑤⑥⑦⑧⑨⑩
9	20 Yuan if ①②③ 5 Yuan if ④⑤⑥⑦⑧⑨⑩	110 Yuan if ① 2.5 Yuan if ②③④⑤⑥⑦⑧⑨⑩
10	20 Yuan if ①②③ 5 Yuan if ④⑤⑥⑦⑧⑨⑩	150 Yuan if ① 2.5 Yuan if ②③④⑤⑥⑦⑧⑨⑩
11	20 Yuan if ①②③ 5 Yuan if ④⑤⑥⑦⑧⑨⑩	200 Yuan if ① 2.5 Yuan if ②③④⑤⑥⑦⑧⑨⑩
12	20 Yuan if ①②③ 5 Yuan if ④⑤⑥⑦⑧⑨⑩	300 Yuan if ① 2.5 Yuan if ②③④⑤⑥⑦⑧⑨⑩

13	20 Yuan if ①②③ 5 Yuan if ④⑤⑥⑦⑧⑨⑩	500 Yuan if ① 2.5 Yuan if ②③④⑤⑥⑦⑧⑨⑩
14	20 Yuan if ①②③ 5 Yuan if ④⑤⑥⑦⑧⑨⑩	850 Yuan if ① 2.5 Yuan if ②③④⑤⑥⑦⑧⑨⑩

I choose lottery A for Row 1 to _____.
I choose lottery B for Row _____ to 14.

Series 2

	A	B
1	20 Yuan if ①②③④⑤⑥⑦⑧⑨ 15 Yuan if ⑩	27 Yuan if ①②③④⑤⑥⑦ 2.5 Yuan if ⑧⑨⑩
2	20 Yuan if ①②③④⑤⑥⑦⑧⑨ 15 Yuan if ⑩	28 Yuan if ①②③④⑤⑥⑦ 2.5 Yuan if ⑧⑨⑩
3	20 Yuan if ①②③④⑤⑥⑦⑧⑨ 15 Yuan if ⑩	29 Yuan if ①②③④⑤⑥⑦ 2.5 Yuan if ⑧⑨⑩
4	20 Yuan if ①②③④⑤⑥⑦⑧⑨ 15 Yuan if ⑩	30 Yuan if ①②③④⑤⑥⑦ 2.5 Yuan if ⑧⑨⑩
5	20 Yuan if ①②③④⑤⑥⑦⑧⑨ 15 Yuan if ⑩	31 Yuan if ①②③④⑤⑥⑦ 2.5 Yuan if ⑧⑨⑩
6	20 Yuan if ①②③④⑤⑥⑦⑧⑨ 15 Yuan if ⑩	32.5 Yuan if ①②③④⑤⑥⑦ 2.5 Yuan if ⑧⑨⑩
7	20 Yuan if ①②③④⑤⑥⑦⑧⑨ 15 Yuan if ⑩	34 Yuan if ①②③④⑤⑥⑦ 2.5 Yuan if ⑧⑨⑩
8	20 Yuan if ①②③④⑤⑥⑦⑧⑨ 15 Yuan if ⑩	36 Yuan if ①②③④⑤⑥⑦ 2.5 Yuan if ⑧⑨⑩
9	20 Yuan if ①②③④⑤⑥⑦⑧⑨ 15 Yuan if ⑩	38.5 Yuan if ①②③④⑤⑥⑦ 2.5 Yuan if ⑧⑨⑩
10	20 Yuan if ①②③④⑤⑥⑦⑧⑨ 15 Yuan if ⑩	41.5 Yuan if ①②③④⑤⑥⑦ 2.5 Yuan if ⑧⑨⑩

11	20 Yuan if ①②③④⑤⑥⑦⑧⑨ 15 Yuan if ⑩	45 Yuan if ①②③④⑤⑥⑦ 2.5 Yuan if ⑧⑨⑩
12	20 Yuan if ①②③④⑤⑥⑦⑧⑨ 15 Yuan if ⑩	50 Yuan if ①②③④⑤⑥⑦ 2.5 Yuan if ⑧⑨⑩
13	20 Yuan if ①②③④⑤⑥⑦⑧⑨ 15 Yuan if ⑩	55 Yuan if ①②③④⑤⑥⑦ 2.5 Yuan if ⑧⑨⑩
14	20 Yuan if ①②③④⑤⑥⑦⑧⑨ 15 Yuan if ⑩	65 Yuan if ①②③④⑤⑥⑦ 2.5 Yuan if ⑧⑨⑩

I choose lottery A for Row 1 to _____.
I choose lottery B for Row _____ to 14.

Series 3

	A	B
1	Receive 12.5 Yuan if ①②③④⑤ Lose 2 Yuan if ⑥⑦⑧⑨⑩	Receive 15 Yuan if ①②③④⑤ Lose 10 Yuan if ⑥⑦⑧⑨⑩
2	Receive 2 Yuan if ①②③④⑤ Lose 2 Yuan if ⑥⑦⑧⑨⑩	Receive 15 Yuan if ①②③④⑤ Lose 10 Yuan if ⑥⑦⑧⑨⑩
3	Receive 0.5 Yuan if ①②③④⑤ Lose 2 Yuan if ⑥⑦⑧⑨⑩	Receive 15 Yuan if ①②③④⑤ Lose 10 Yuan if ⑥⑦⑧⑨⑩
4	Receive 0.5 Yuan if ①②③④⑤ Lose 2 Yuan if ⑥⑦⑧⑨⑩	Receive 15 Yuan if ①②③④⑤ Lose 8 Yuan if ⑥⑦⑧⑨⑩
5	Receive 0.5 Yuan if ①②③④⑤ Lose 4 Yuan if ⑥⑦⑧⑨⑩	Receive 15 Yuan if ①②③④⑤ Lose 8 Yuan if ⑥⑦⑧⑨⑩
6	Receive 0.5 Yuan if ①②③④⑤ Lose 4 Yuan if ⑥⑦⑧⑨⑩	Receive 15 Yuan if ①②③④⑤ Lose 7 Yuan if ⑥⑦⑧⑨⑩
7	Receive 0.5 Yuan if ①②③④⑤ Lose 4 Yuan if ⑥⑦⑧⑨⑩	Receive 15 Yuan if ①②③④⑤ Lose 5.5 Yuan if ⑥⑦⑧⑨⑩

I choose lottery A for Row 1 to _____.
I choose lottery B for Row _____ to 7.

Appendix 3

Game Instruction

Twenty farmers from a single village gather in the village office at the end of the interview day. We also invite the village leaders to be present in the room to witness the game so that the farmers will trust us. The village leader first explains to the farmers that we are researchers from the Center for Chinese Agricultural Policy (CCAP) is a department in Chinese Academy of Science (CAS) to conduct research on farmers who make use of genetically modified cotton. I read to the farmers the oral consent form and explain to them that everyone who agrees to participate will receive 10 Yuan to start, but they that might have the chance to lose all 10 Yuan or they might have the chance to win up to 850 Yuan. The farmers who do not wish to participate are given the opportunity to leave the room at this point in time.

We distribute an instruction sheet containing a practice question that we review with each farmer to verify that all participants understand the meanings of lottery A and lottery B. We then prepare two bags, each of a different color, that contain numbered balls. The red bag has 10 balls numbered 1 through 10 representing the probabilities mentioned in the survey questions. The green bag contains 35 balls, each representing one of the 35 rows in the survey. We explain to the participants that after the completion of the answer sheet, they will draw one ball out of the green bag first. The number on that ball will determine which line out of the 35 that they have answered will be played. They then draw another ball out of the red bag. Depending on the lottery they have chosen for that particular line, their payoff will be determined by the second numbered ball. I use the sample answer in the instruction sheet to demonstrate how the payoff would be determined. I repeat the demonstration five times, asking the participants each time how much the payoff would be, in order to ensure that most of them understand how the game works. We instruct the participants not to communicate with each other during the game. A few of participants who cannot read have special assistants who read the instruction sheet and questions to them. A cover sheet is attached to the answer sheet; therefore, participants need not worry that others will see their answers. This whole process normally takes an hour to an hour and an half.

Appendix 4

The two technology options are presented below. L^T shows the performance of traditional cotton and L^{BT} shows the performance of Bt cotton.

$$L^T = \begin{cases} \Pr(M) = q \\ \Pr(M-b) = 1-q \end{cases} \qquad L^{BT} = \begin{cases} \Pr(b) = p \\ \Pr(0) = (1-p)q \\ \Pr(-b) = (1-p)(1-q) \end{cases}$$

$$1 > b > 0;\ b > M > 0 > M-b > -b;\ \ 1 \geq p \geq 0;\ 1 \geq q \geq 0.$$

The TCN utility function has the following format:

$$U(x,p;y,q) = \begin{cases} \nu(y) + w(p)(\nu(x) - \nu(y)) & x > y > 0 \ or \ x < y < 0 \\ w(p)\nu(x) + w(q)\nu(y) & x < 0 < y \end{cases} \quad ----(1)$$

$$where\ \nu(\mathrm{x}) = \begin{cases} x^{1-\sigma} & for\ x > 0 \\ -\lambda(-x)^{1-\sigma} & for\ x < 0 \end{cases} \ and\ w(p) = \exp[-(-\ln p)^{\alpha}]$$

$$0 < w(p) < 1 \text{ and } 0 < p < 1$$

Using the existing studies on Bt cotton such as Huang, Hu et al.(2002) in China, we can infer the relative size of M and b compared to the profit. For simplicity, let us assuming M = 0.05 and b = 0.4. We would proceed the analysis by breaking the perceived effectiveness of Bt cotton into effective ($\lim p \to 1$), ineffective ($\lim p \to 0$), uncertain $0 < p < 1$

$$U(L^{BT}) = w(p) \cdot v(b) + w((1-p)(1-q)) \cdot v(-b)$$
$$U(L^{BT}) = w(p) \cdot v(0.4) - w((1-p)(1-q)) \cdot \lambda \cdot v(0.4)$$

$$U(L^T) = w(q) \cdot v(M) + w(1-q) \cdot v(M-b)$$
$$U(L^T) = w(q) \cdot v(0.05) - w(1-q) \cdot \lambda \cdot v(0.35)$$

$$dU(L^{BT})/d\sigma = -w(p)\cdot(0.4)^{1-\sigma}\cdot\ln(0.4) + w((1-p)(1-q))\cdot\lambda\cdot(0.4)^{1-\sigma}\cdot\ln(0.4)$$
$$dU(L^{T})/d\sigma = -w(q)\cdot(0.05)^{1-\sigma}\cdot\ln(0.05) + w((1-q))\cdot\lambda\cdot(0.35)^{1-\sigma}\cdot\ln(0.35)$$

$$dF/d\sigma$$
$$= dU(L^{Bt})/d\sigma - dU(L^{T})/d\sigma$$
$$= (0.4)^{1-\sigma}\cdot\ln(0.4)\cdot[\lambda\cdot w((1-p)(1-q)) - w(p)] - w((1-q))\cdot\lambda\cdot(0.35)^{1-\sigma}\cdot\ln(0.35) + w(q)\cdot(0.05)^{1-\sigma}\cdot\ln(0.05)$$

$$dF/d\lambda$$
$$= dU(L^{Bt})/d\lambda - dU(L^{T})/d\lambda$$
$$= -w((1-p)(1-q))\cdot v(0.4) + w(1-q)\cdot v(0.35)$$
$$= -w((1-p)(1-q))\cdot(0.4)^{1-\sigma} + w(1-q)\cdot(0.35)^{1-\sigma}$$

$$dw(x)/d\alpha = -e^{-(-\ln x)^{\alpha}}\cdot\ln(-\ln x)\cdot(-\ln x)^{\alpha}$$

$$dF/d\alpha$$
$$= dU(L^{Bt})/d\alpha - dU(L^{T})/d\alpha$$
$$= dw(p)/d\alpha\cdot v(0.4) - dw((1-p)(1-q))/d\alpha\cdot\lambda\cdot v(0.4) - dw(q)/d\alpha\cdot v(0.05) + dw(1-q)/d\alpha\cdot\lambda\cdot v(0.35)$$
$$= dw(p)/d\alpha\cdot v(0.4) + dw(1-q)/d\alpha\cdot\lambda\cdot v(0.35) - dw((1-p)(1-q))/d\alpha\cdot\lambda\cdot v(0.4) - dw(q)/d\alpha\cdot v(0.05)$$
$$= -e^{-(-\ln p)^{\alpha}}\cdot\ln(-\ln p)\cdot(-\ln p)^{\alpha}\cdot v(0.4) - e^{-(-\ln(1-q))^{\alpha}}\cdot\ln(-\ln(1-q))\cdot(-\ln(1-q))^{\alpha}\cdot\lambda\cdot v(0.35)$$
$$+ e^{-(-\ln(1-p)(1-q))^{\alpha}}\cdot\ln(-\ln((1-p)(1-q)))\cdot(-\ln((1-p)(1-q)))^{\alpha}\cdot\lambda\cdot v(0.4) + e^{-(-\ln q)^{\alpha}}\cdot\ln(-\ln q)\cdot(-\ln q)^{\alpha}\cdot v(0.05)$$

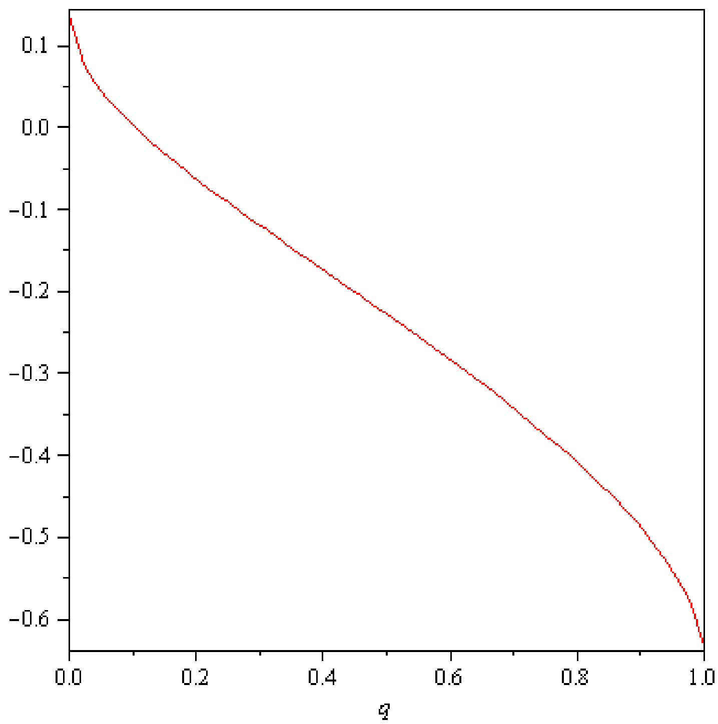
1. **Bt cotton is perceived as ineffective (lim p->0^{+})**

$$dF/d\sigma$$
$$= dU(L^{Bt})/d\sigma - dU(L^{T})/d\sigma$$
$$= \lim_{p\to 0^{+}}(0.4)^{1-\sigma}\cdot\ln(0.4)\cdot[\lambda\cdot w((1-p)(1-q)) - w(p)] - w(1-q)\cdot\lambda\cdot(0.35)^{1-\sigma}\cdot\ln(0.35) + w(q)\cdot(0.05)^{1-\sigma}\cdot\ln(0.05)$$
$$= (0.4)^{1-\sigma}\cdot\ln(0.4)\cdot\lambda\cdot w(1-q) - w(1-q)\cdot\lambda\cdot(0.35)^{1-\sigma}\cdot\ln(0.35) + w(q)\cdot(0.05)^{1-\sigma}\cdot\ln(0.05)$$
$$= \lambda\cdot w(1-q)\cdot[(0.4)^{1-\sigma}\cdot\ln(0.4) - (0.35)^{1-\sigma}\cdot\ln(0.35)] + w(q)\cdot(0.05)^{1-\sigma}\cdot\ln(0.05) <> 0$$

Since $(1-\sigma)\geq 0$, $\lambda\cdot w(1-q)\geq 0$, $(0.35)^{1-\sigma}\cdot\ln(0.35) - (0.4)^{1-\sigma}\cdot\ln(0.4) > 0$ and

$w(q) \cdot (0.05)^{1-\sigma} \cdot \ln(0.05) \leq 0,$ the sign can't be determined.

If we assume that σ =0.48, λ = 3.47 and α = 0.69 (to be the mean of population), then we can graph dF/dσ for a given range of q. dF/dσ is on the y-axis. As presented in the figure below, if Bt cotton is perceived ineffective, except for the extremely low value of q, the more risk averse would adopt it later.



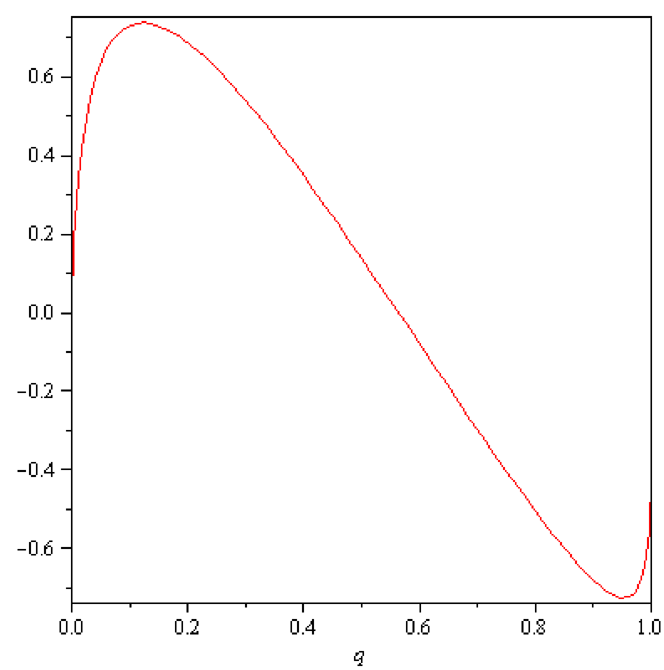
$$
\begin{aligned}
dF/d\lambda &= dU(L^{Bt})/d\lambda - dU(L^{T})/d\lambda \\
&= \lim_{p\to 0^+} - w((1-p)(1-q)) \cdot v(0.4) + w(1-q) \cdot v(0.35) \\
&= \lim_{p\to 0^+} w(1-q) \cdot (0.35)^{1-\sigma} - w((1-p)(1-q)) \cdot (0.4)^{1-\sigma} \\
&= w(1-q) \cdot (0.35)^{1-\sigma} - w((1-q)) \cdot (0.4)^{1-\sigma} \\
&= w(1-q) \cdot [(0.35)^{1-\sigma} - (0.4)^{1-\sigma}] \leq 0
\end{aligned}
$$

Since $1 > w(1-q) \geq 0$ and $[(-1) \cdot (0.4)^{1-\sigma} + (0.35)^{1-\sigma}] \leq 0$ if $0<\sigma<1$

It indicates that for the more loss averse farmers would adopt Bt cotton later.

$$dF/d\alpha = dU(L^{Bt})/d\alpha - dU(L^{T})/d\alpha$$
$$\lim_{p\to 0^+} dF/d\alpha$$
$$\lim_{p\to 0^+} dF/d\alpha$$
$$= \lim_{p\to 0^+} dw(p)/d\alpha \cdot v(0.4) - dw((1-p)(1-q))/d\alpha \cdot \lambda \cdot v(0.4) - dw(q)/d\alpha \cdot v(0.05) + dw(1-q)/d\alpha \cdot \lambda \cdot v(0.35)$$
$$= \lim_{p\to 0^+} e^{-(-\ln(1-p)(1-q))^{\alpha}} \cdot \ln(-\ln((1-p)(1-q))) \cdot (-\ln(1-p)(1-q))^{\alpha} \cdot \lambda \cdot v(0.4) + e^{-(-\ln q)^{\alpha}} \cdot \ln(-\ln q) \cdot (-\ln q)^{\alpha} \cdot v(0.05)$$
$$- e^{-(-\ln p)^{\alpha}} \cdot \ln(-\ln p) \cdot (-\ln p)^{\alpha} \cdot v(0.4) - e^{-(-\ln(1-q))^{\alpha}} \cdot \ln(-\ln(1-q)) \cdot (-\ln(1-q))^{\alpha} \cdot \lambda \cdot v(0.35)$$

The sign of $dF/d\alpha$ depends on q, λ, α and σ. If we assume λ = 3.47 and σ=0.48 and α=0.69 , then we can graph $dF/d\alpha$ for a range of q. Suppose severe pest infestation is not frequent (large q), it indicates that when Bt cotton is perceived as ineffective, $dF/d\alpha$ would be negative. Thus, the higher α one has, they would adopt Bt cotton later.

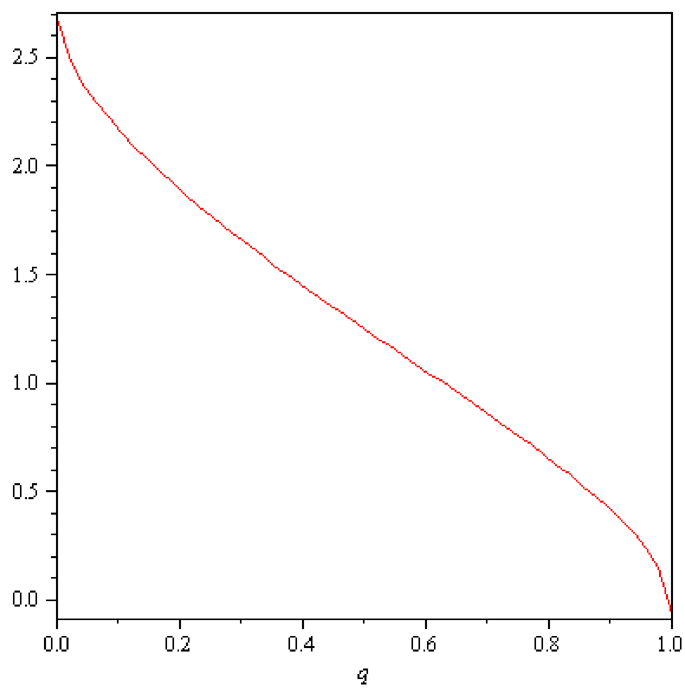


2. Bt is effective $(\lim p \to 1^-)$

$$\lim_{p\to 1^-} dF/d\sigma$$
$$= \lim_{p\to 1^-}(0.4)^{1-\sigma}\cdot\ln(0.4)\cdot[\lambda\cdot w((1-p)(1-q))-w(p)]-w(1-q)\cdot\lambda\cdot(0.35)^{1-\sigma}\cdot\ln(0.35)+w(q)\cdot(0.05)^{1-\sigma}\cdot\ln(0.05)$$
$$=(0.4)^{1-\sigma}\cdot\ln(0.4)\cdot[\lambda\cdot 0-1]-w(1-q)\cdot\lambda\cdot(0.35)^{1-\sigma}\cdot\ln(0.35)+w(q)\cdot(0.05)^{1-\sigma}\cdot\ln(0.05)$$
$$=-(0.4)^{1-\sigma}\cdot\ln(0.4)-w(1-q)\cdot\lambda\cdot(0.35)^{1-\sigma}\cdot\ln(0.35)+w(q)\cdot(0.05)^{1-\sigma}\cdot\ln(0.05)$$
$$=w(q)\cdot(0.05)^{1-\sigma}\cdot\ln(0.05)-w(1-q)\cdot\lambda\cdot(0.35)^{1-\sigma}\cdot\ln(0.35)-(0.4)^{1-\sigma}\cdot\ln(0.4)<>0$$

Since $\ln(0.05)\cong-2.99$, $\ln(0.4)\cong-0.916$ and $\ln(0.35)\cong-1.049$, the sign of the derivative depends on q, λ, α and σ.

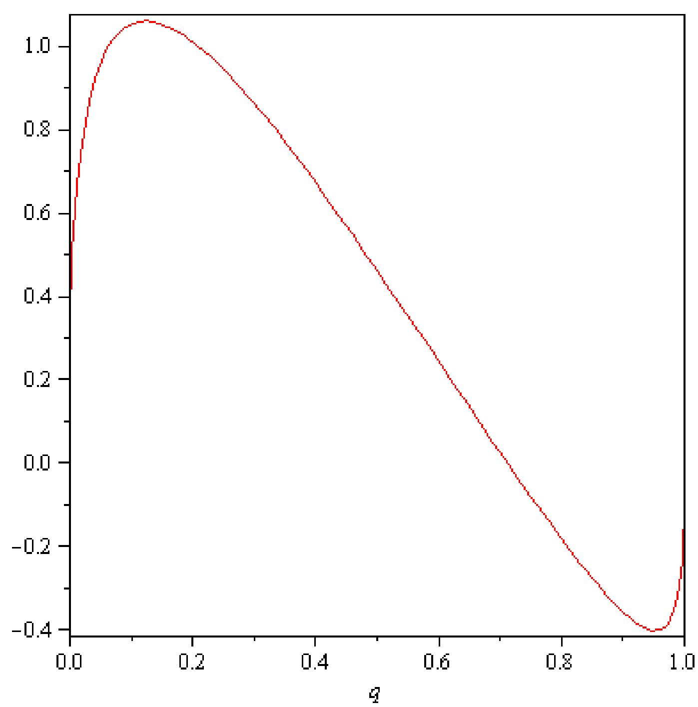
If we assume that σ =0.48, λ = 3.47 and α = 0.69 (to be the mean of population), then we can graph dF/dσ for a given range of q and σ. dF/dσ is on the y-axis. As presented below, if Bt cotton is perceived to be effective, then the more risk averse farmers would adopt it sooner.



$$\lim_{p\to 1^-} dF/d\lambda$$
$$= \lim_{p\to 1^-} - w((1-p)(1-q))\cdot v(0.4) + w(1-q)\cdot v(0.35)$$
$$= \lim_{p\to 1^-} w(1-q)\cdot (0.35)^{1-\sigma} - w((1-p)(1-q))\cdot (0.4)^{1-\sigma}$$
$$= w(1-q)\cdot (0.35)^{1-\sigma} > 0$$

$$\lim_{p\to 1^-} dF/d\alpha$$
$$= \lim_{p\to 1^-} dw(p)/d\alpha\cdot v(0.4) - dw((1-p)(1-q))/d\alpha\cdot\lambda\cdot v(0.4) - dw(q)/d\alpha\cdot v(0.05) + dw(1-q)/d\alpha\cdot\lambda\cdot v(0.35)$$
$$= \lim_{p\to 1^-} dw(p)/d\alpha\cdot v(0.4) + dw(1-q)/d\alpha\cdot\lambda\cdot v(0.35) - dw((1-p)(1-q))/d\alpha\cdot\lambda\cdot v(0.4) - dw(q)/d\alpha\cdot v(0.05)$$
$$= \lim_{p\to 1^-} e^{-((-\ln(1-p)(1-q))^{\alpha}}\cdot\ln(-\ln((1-p)(1-q)))\cdot(-\ln((1-p)(1-q)))^{\alpha}\cdot\lambda\cdot(0.4)^{1-\sigma} + e^{-(-\ln q)^{\alpha}}\cdot\ln(-\ln q)\cdot(-\ln q)^{\alpha}\cdot(0.05)^{1-\sigma}$$
$$-e^{-(-\ln p)^{\alpha}}\cdot\ln(-\ln p)\cdot(-\ln p)^{\alpha}\cdot(0.4)^{1-\sigma} - e^{-(-\ln(1-q))^{\alpha}}\cdot\ln(-\ln(1-q))\cdot(-\ln(1-q))^{\alpha}\cdot\lambda\cdot(0.35)^{1-\sigma} <> 0$$

The sign of $dF/d\alpha$ depends on q, λ, α and σ. If we assume α=0.69, λ = 3.47 and σ=0.48 and $\lim p\to 1^-$, then we can graph $dF/d\alpha$ for a range of q as presented in Figure below. $dF/d\alpha$ is the y-axis.

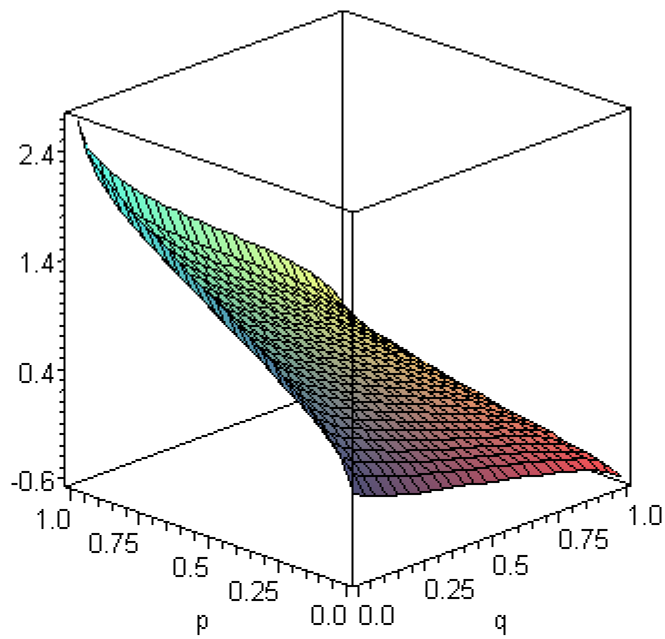


3. Bt cotton is perceived as mixed effectiveness (0<p<1)

$$dF/d\sigma$$
$$= dU(L^{Bt})/d\sigma - dU(L^{T})/d\sigma$$
$$= (0.4)^{1-\sigma} \cdot \ln(0.4) \cdot [\lambda \cdot w((1-p)(1-q)) - w(p)] - w(1-q) \cdot \lambda \cdot (0.35)^{1-\sigma} \cdot \ln(0.35) + w(q) \cdot (0.05)^{1-\sigma} \cdot \ln(0.05)$$

The sign of $dF/d\sigma$ would depend on the size of σ, α, p, q and λ.

If we assume that σ =0.48, λ = 3.47 and α = 0.69 (to be the mean of population), then we can graph dF/dσ for a given range of p and q. dF/dσ is on the z-axis.

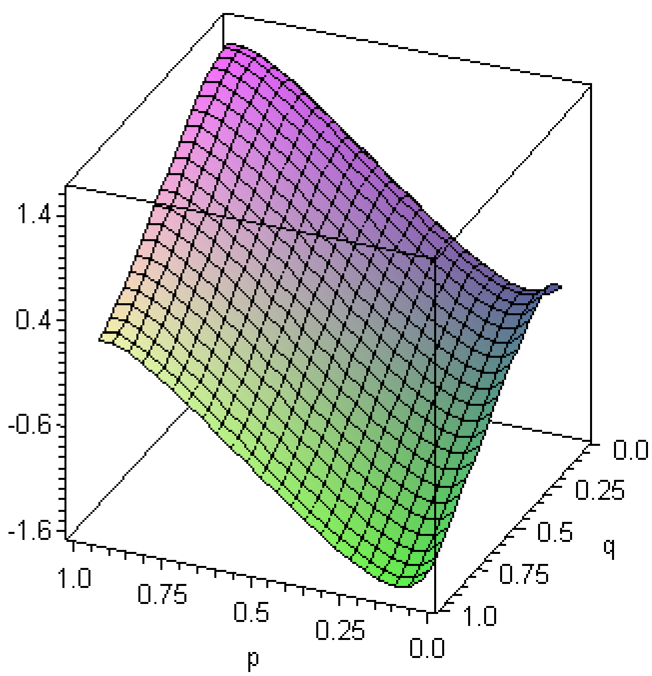


$$dF/d\lambda$$
$$= dU(L^{Bt})/d\lambda - dU(L^{T})/d\lambda$$
$$= -w((1-p)(1-q)) \cdot v(0.4) + w(1-q) \cdot v(0.35)$$
$$= -w((1-p)(1-q)) \cdot (0.4)^{1-\sigma} + w(1-q) \cdot (0.35)^{1-\sigma}$$

The sign of $dF/d\lambda$ depends on the size of p and q

$$dF/d\alpha$$
$$= dU(L^{Bt})/d\alpha - dU(L^{T})/d\alpha$$
$$= dw(p)/d\alpha \cdot v(0.4) - dw((1-p)(1-q))/d\alpha \cdot \lambda \cdot v(0.4) - dw(q)/d\alpha \cdot v(0.05) + dw(1-q)/d\alpha \cdot \lambda \cdot v(0.35)$$
$$= e^{-(-\ln(1-p)(1-q))^{\alpha}} \cdot \ln(-\ln((1-p)(1-q))) \cdot (-\ln(1-p)(1-q))^{\alpha} \cdot \lambda \cdot v(0.4) + e^{-(-\ln q)^{\alpha}} \cdot \ln(-\ln q) \cdot (-\ln q)^{\alpha} \cdot v(0.05)$$
$$- e^{-(-\ln p)^{\alpha}} \cdot \ln(-\ln p) \cdot (-\ln p)^{\alpha} \cdot v(0.4) - e^{-(-\ln(1-q))^{\alpha}} \cdot \ln(-\ln(1-q)) \cdot (-\ln(1-q))^{\alpha} \cdot \lambda \cdot v(0.35)$$

The sign of $dF/d\alpha$ depends on p, q, λ, α and σ. If we assume α =0.69, λ = 3.47 and σ=0.48, then we can graph $dF/d\alpha$ for a range of p and q. $dF/d\alpha$ is on the z-axis.



Appendix Table: Weibull Model for Duration of Time to Adoption
Robustness Check--Social Network

	(1) Walk to 20 Neighbors	(2) # of Wedding Attended	(3) Size of Last Celebration	(4) Kinship in Village
σ	-0.333	-0.338	-0.333	-0.340
(value function curvature)	(0.181)*	(0.182)*	(0.179)*	(0.180)*
λ	-0.033	-0.037	-0.035	-0.034
(loss aversion)	(0.017)*	(0.017)**	(0.017)**	(0.017)**
α	-0.818	-0.814	-0.848	-0.831
(probability weighting)	(0.255)***	(0.257)***	(0.258)***	(0.259)***
Social Network Proxy	0.005	0.011	-0.001	-0.008
	(0.005)	(0.008)	(0.001)	(0.053)
Observations	302	299	302	302

*Note: All regressions controlled for age, gender, land owned, education, village official status, and # of adults above age 28. Robust standard errors in parentheses. * significant at 10%; ** significant at 5%; *** significant at 1%. All regressions include village fixed effects. Sample exclude all households that were formed after 1993.*