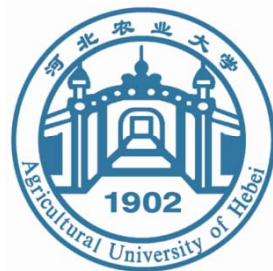


# Cotton farming and farmers in Hebei province, Northern China



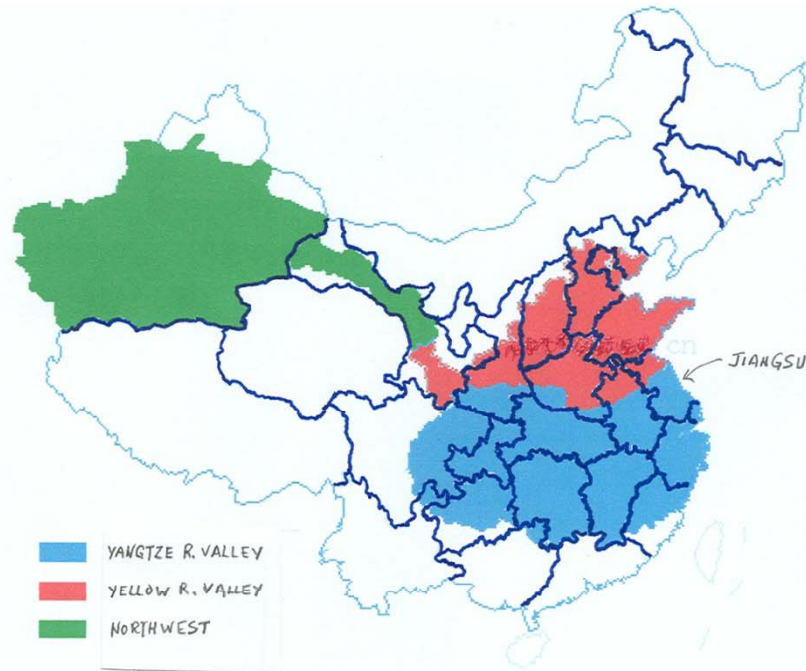
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# Our objective

- Mainly short description of current situation
- ...in one province
- Providing some insight on the uncertainty of next future
  - about farming
  - ...and cotton production

# Hebei: traditional location of cotton production

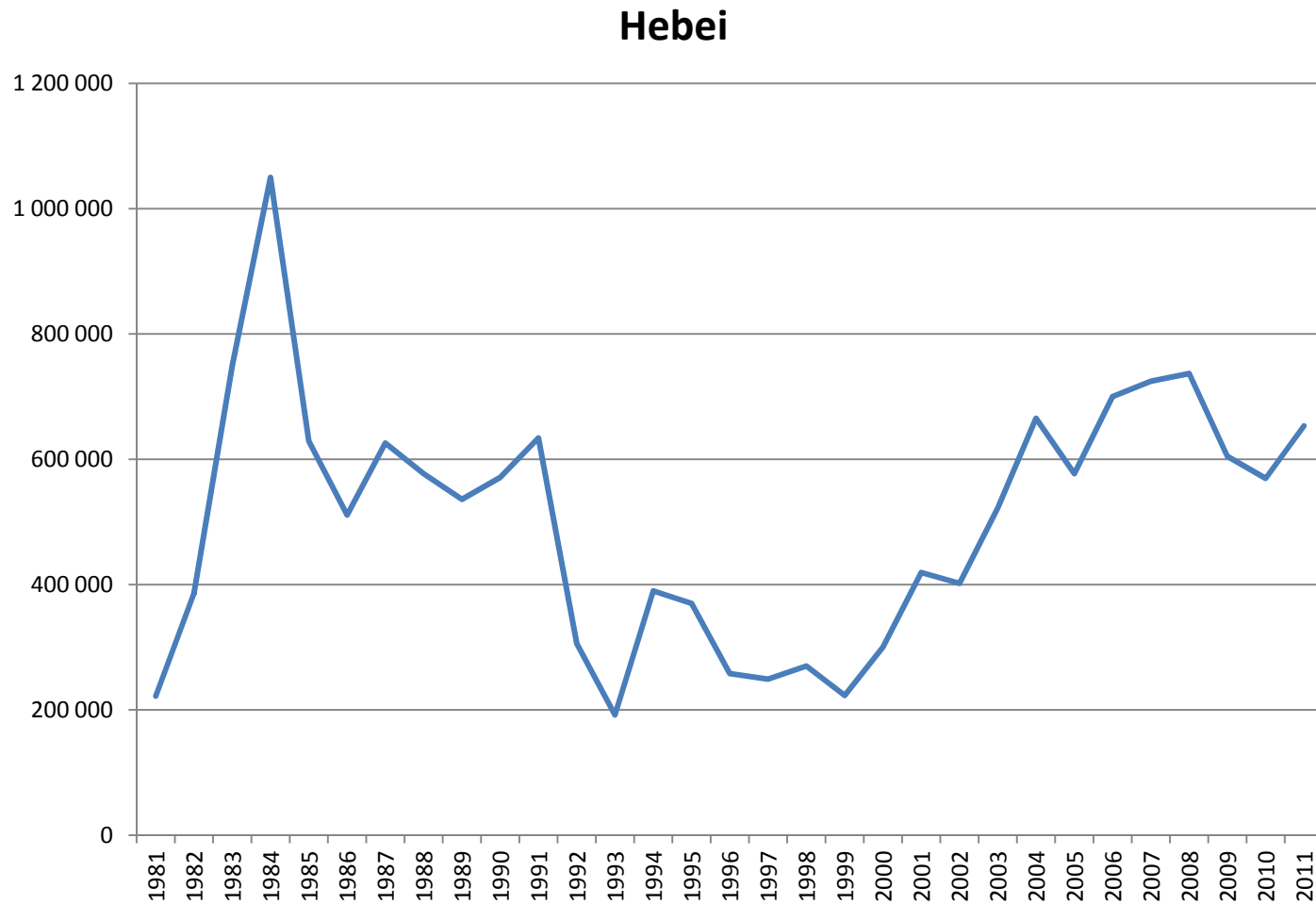


- Results of years of survey
  - Yearly survey from 2006 to 2011,
    - but data under processing for 2010 & 2011
  - Main cotton zones: south of the province
  - Surveys by ag. Students
    - bypassing local extension officers
    - Villages varied over years



# Hebei: important production but stagnates

Cotton lint production, tons



# Farmers faithful to cotton cropping?

Having gived up cotton the last 10 years?	% farms
Never	71.8
1-3 times	13.9
4-6 times	9.6
More than 6 times	4.7

Answers from 387 farmers in 2010 and 2011

# Small cotton area by farm

Mean cotton area and standard deviation (in ha)

2006	0.66 (0.37)
2007	0.48 (0.39)
2008	0.39 (0.27)
2009	0.36 (0.74)
2010	1.20 (4.03)
2011	0.59 (0.71)

From our surveys

## Specialization captured in 2010

District	Nber farms	Mean	Std dev
Baoding	22	0.08	0.02
Cangzhou*	21	10.34	11.32
Hengshui	61	0.28	0.27
Xingtai	110	0.69	0.36
Handan	64	0.36	0.28

\* Out of 21 farms, 13 had cotton areas ranging from 6.67 to 46.7 ha, while the remaining farms had areas from 0.13 to 0.33 ha

# Farmers' ages in our surveys

Farm heads = males

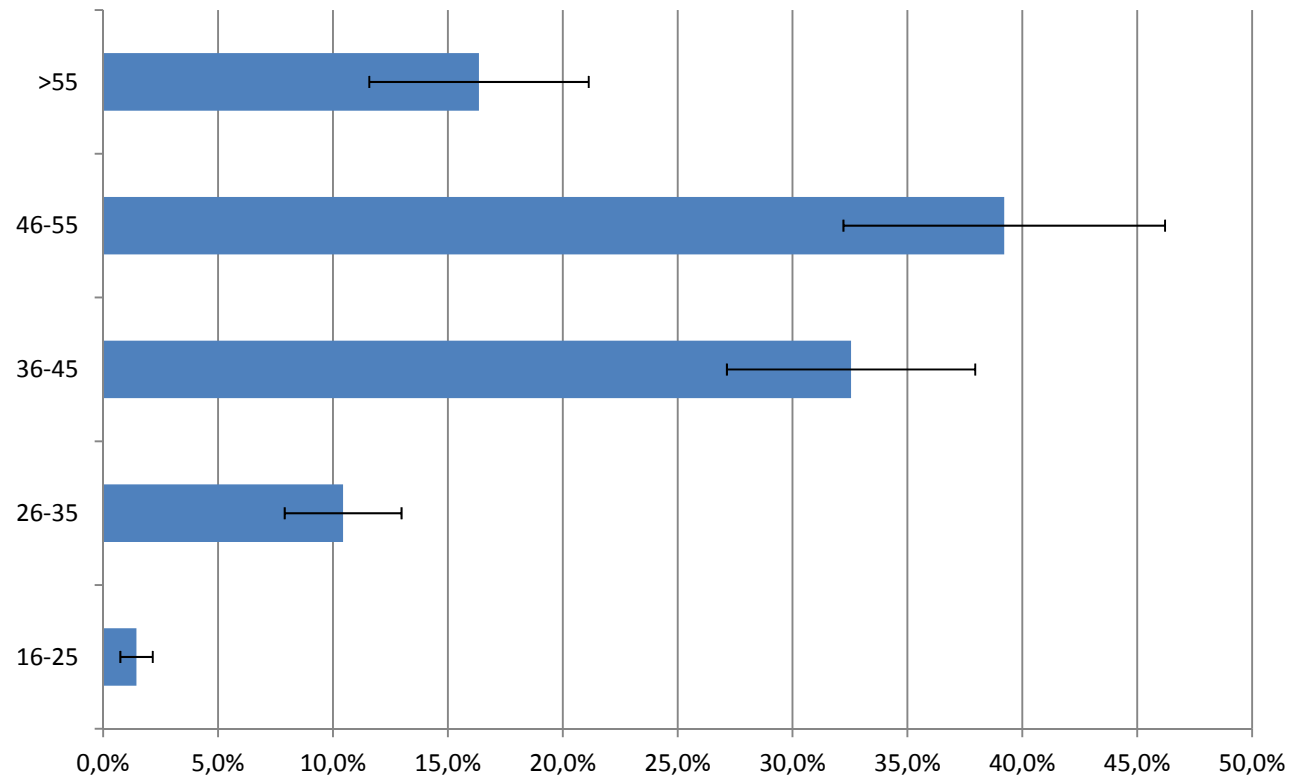
	Farm heads	
	Number	Av. age
2006	115	44.5
2007	205	45.5
2008	340	47.0
2009	159	47.1
2010	279	46.9
2011	262	48.5

1360 farms not considering 9 monitored by widows



# Aging of farmers

Distribution of farms according to the age cohorts of farm heads (average frequencies over 2006-2011 and std dev)

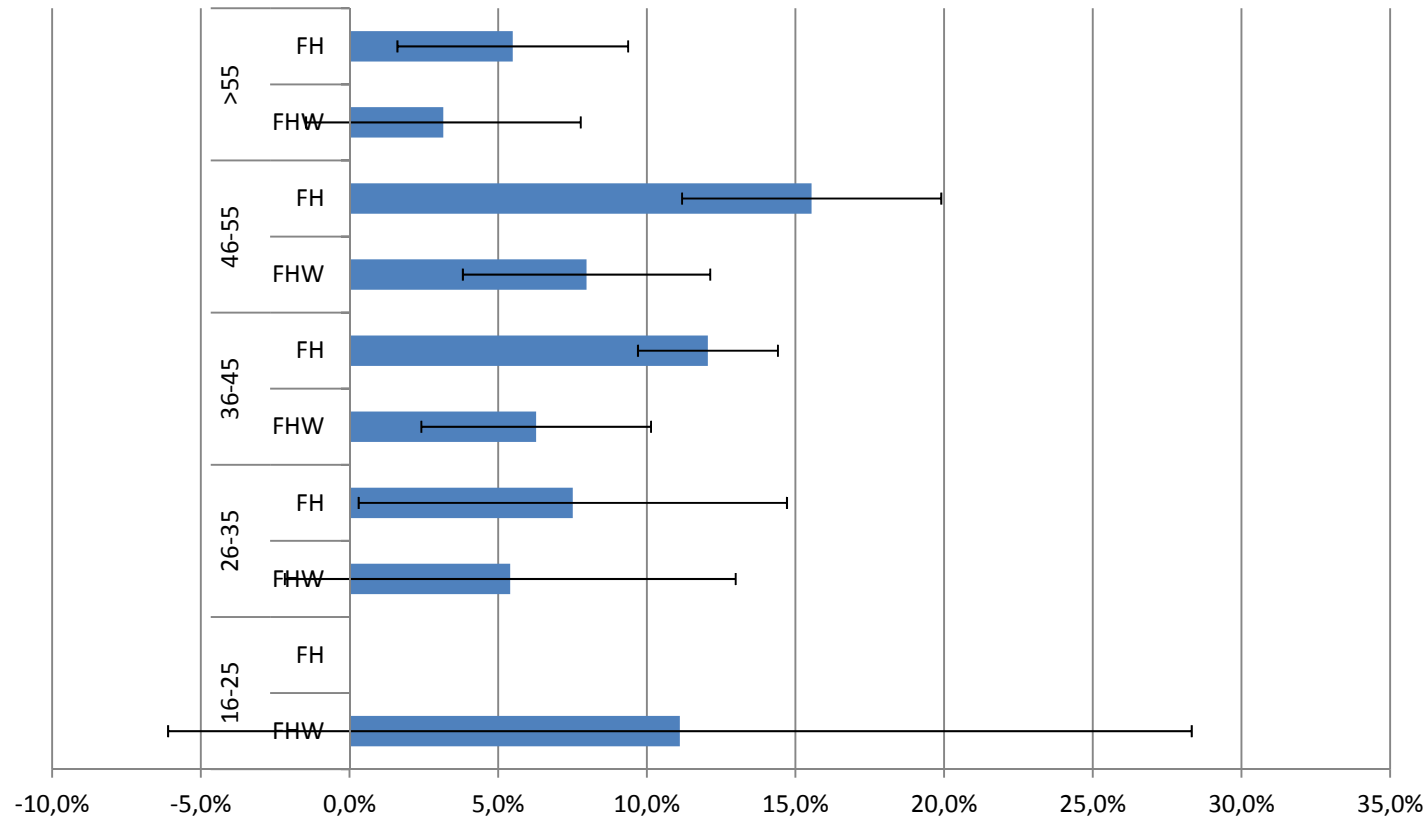


Less entry of newly settled farmers

Replacement of retiring farmers is at stake

# Younger farmers not better educated...

Average frequencies of farms' heads of their wives reaching high school level according to their age cohort (2006-2011)



...as well as their wives

# Farming: refuge for less educated?

Frequencies of reaching at least high school level

	Farming members		Non-Farming members	
	Males	Females	Males	Females
16-25	14.3	2.6	39.3	47.6
26-35	6.3	8.6	32.3	45.7
36-45	10.4	5.9	18.4	19.6
46-55	11.7	4.8	26.2	27.3
>55	5.7	8.4	14.3	5.3

Farming people are less educated

Younger people are better educated...

...furthermore females!

# One-child policy not strictly respected

Distribution of farms according to the number of children, %  
(number of farms in parentheses)

	2010	2011	2 years
One	44.6 (121)	28.0 (51)	38.0 (172)
Two	44.3 (120)	57.1 (104)	49.4 (224)
At least 3	11.1 (30)	14.8 (27)	12.6 (57)

# More children quitting their parents

Because of getting married

...even in China where sons were supposed to stay and care after their parents

	Number of Farm families' Children living with parents	separately	Total
2010	0.5	1.6	2.1
2011	0.7	1.6	2.3

# Soon, most farmers will live alone?

...because their children are close to get married

Average ages of farmers' children

	Sons		Daughters	
	in	out	in	out
2006	20.8		18.3	
2007	20.8		18.9	
2008	22.2		20.1	
2009	21.5		18.6	
2010	19.1	26.8	18.4	24.9
2011	19.8	29.5	18.3	27.3

# Farms are tiny...

Mean and (std deviation)

	Land (ha)	
	Cultivated	Owned
2006	0.82 (0.39)	0.71 (0.24)
2007	0.78 (0.47)	0.64 (0.29)
2008	0.69 (0.34)	0.57 (0.27)
2009	0.75 (0.93)	0.58 (0.37)

## ...tiny farms even with rented land

Data in years 2006 to 2008

	Farms with rented land	Farms without rented land
Number farms	196	464
% farms	29.7	70.3
Cultivated land (ha)	0.99 (0.52)	0.64 (0.29)
Rented land (ha)		
Mean	0.43	
Minimum	0.06	
Maximum	2.67	



# Albeit a few farms are getting bigger

Data in years 2009 to 2011

	Farms with rented land	Farms without rented land
Number farms	212	485
% farms	30.4	69.6
Cultivated land (ha)	2.07 (4.64)	0.68 (0.33)
Rented land (ha)		
Mean	1.53	0.43
Minimum	0.07	0.06
Maximum	46.67	2.07

vs

Note : specialization observed in 2010 in one district

# Off-farming: frequent, not systematic and gender-oriented

Percentage of farms with family members off-farming (sons and daughters having not separate housing)

Farm Heads	29.4
Farm H wives	8.1
Farm sons	28.6
Farm girls	12.6

1360 farms during 2006-2011 period

55% farms concerned by off-farming, of which  
19.7% and 16.1% respectively by farm heads and  
sons alone

# Farming: marginal activity to offsprings

Distribution of activities of farms' youth,  $\geq 16$  years old

	Total	Off-farming %	Regard to farming (%)	
			Never	Permanently
Sons	762	61.5	28.7	10.9
Daughters	388	48.6	33.5	7.2
Total	1150	55.0	30.3	9.7

2006-2011 period

# Some extent of ag. feminization

- Females ( $\geq 16$  years old)
  - 67.5% involved permanently in agriculture
    - Vs 48.0% for males
  - Represent 53.7% of permanent labour in fields

## But ag. feminization may not last

Distribution of females permanently involved in field works

Age cohort	%
16-25	2.9
26-35	12.1
36-45	31.8
46-55	41.1
>55	12.1

1848 females over 2006-2011

...unlike our research team



Thank you for your attention