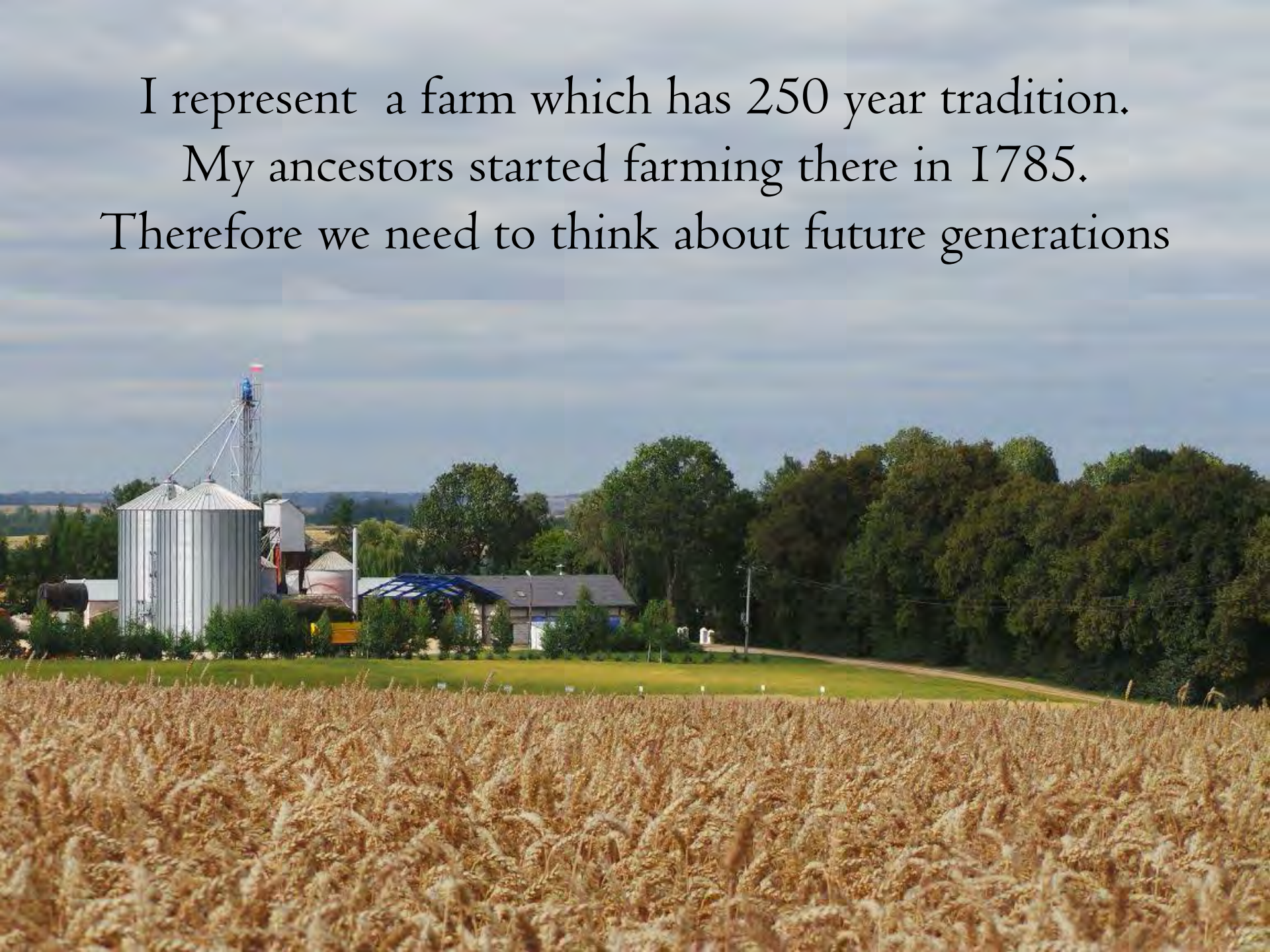
New technologies - New challenges.

Nowadays farmers have to protect the ecosystem.

He has to be a landscape engineer.

I represent a farm which has 250 year tradition.
My ancestors started farming there in 1785.
Therefore we need to think about future generations



My farm is situated in the west part of Lublin Plateau.

It is hilly, undulating area with very good loess soil.

Crop structure on our farm.

95 hectare

Corn

250 hectare

Wheat

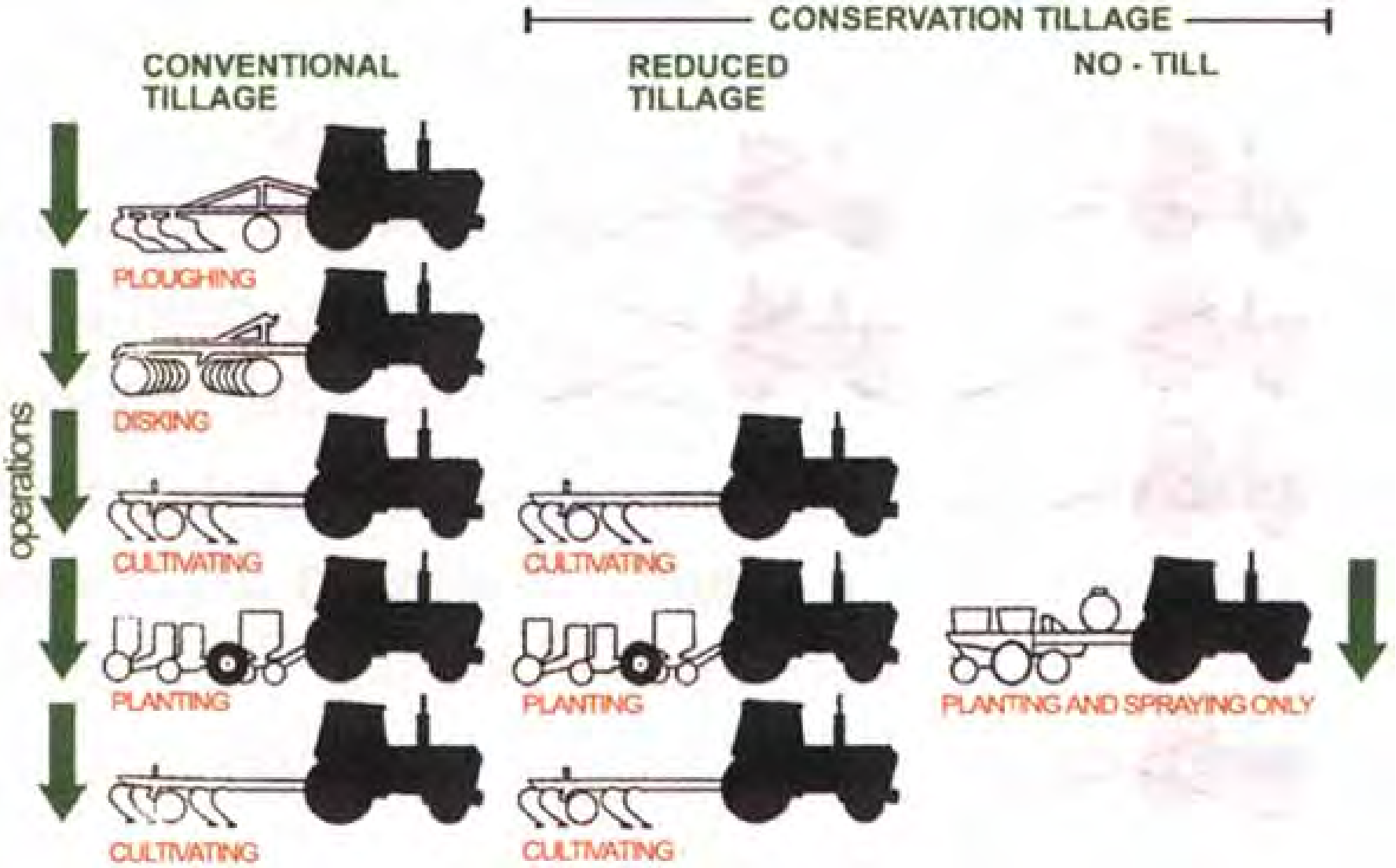
175 hectare

Rape

Our farm has 520 hectares of land, our tractors have 870HP altogether, what gives 1,7 HP per hectare, and that is enough to farm 800 hectares of land.

Experimental plots

There is a risk of water erosion.

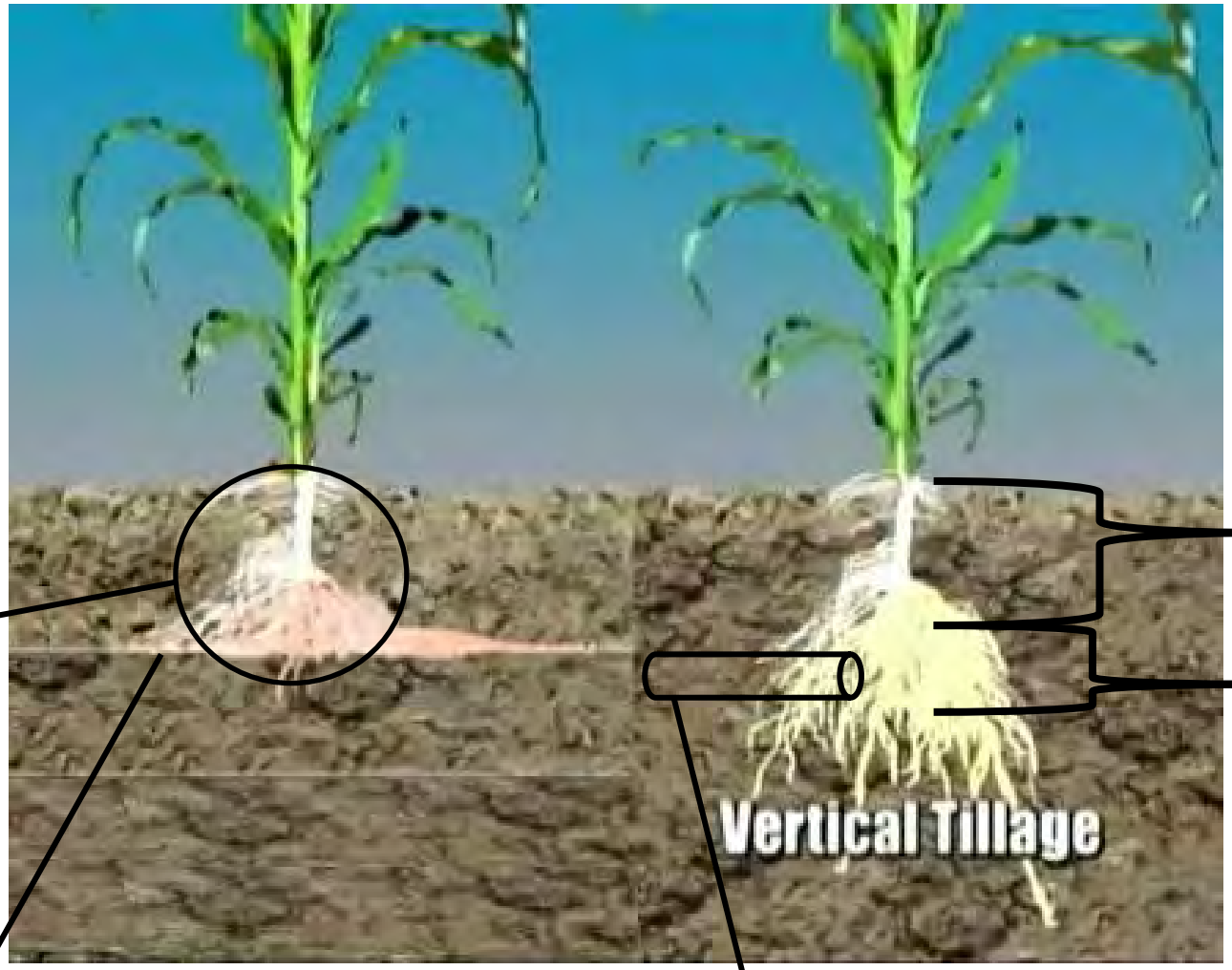


Taken from: *http://www.fao.org/docrep/006/y5146e/y5146e08.htm*

Considering one hectare of land we should farm as much as it is necessary and as little as it is possible.

This type of farming, protect soil from water erosion and acumulate water.

We have decided to use strip tillage method for rape, corn, soya and wheat (two stages of cultivation).



N,P,K

Plow pan

Air canal

0-20 cm
N,P + Ca

20-35 cm N,P,K
+
microelements
+
PRP or
$CaSO_4 \cdot 2H_2O$

Fertilizers application in big depth partly reduces drought, because roots in this type of farming are longer and the surface drought doesn't stop the plant from nutrients uptake.

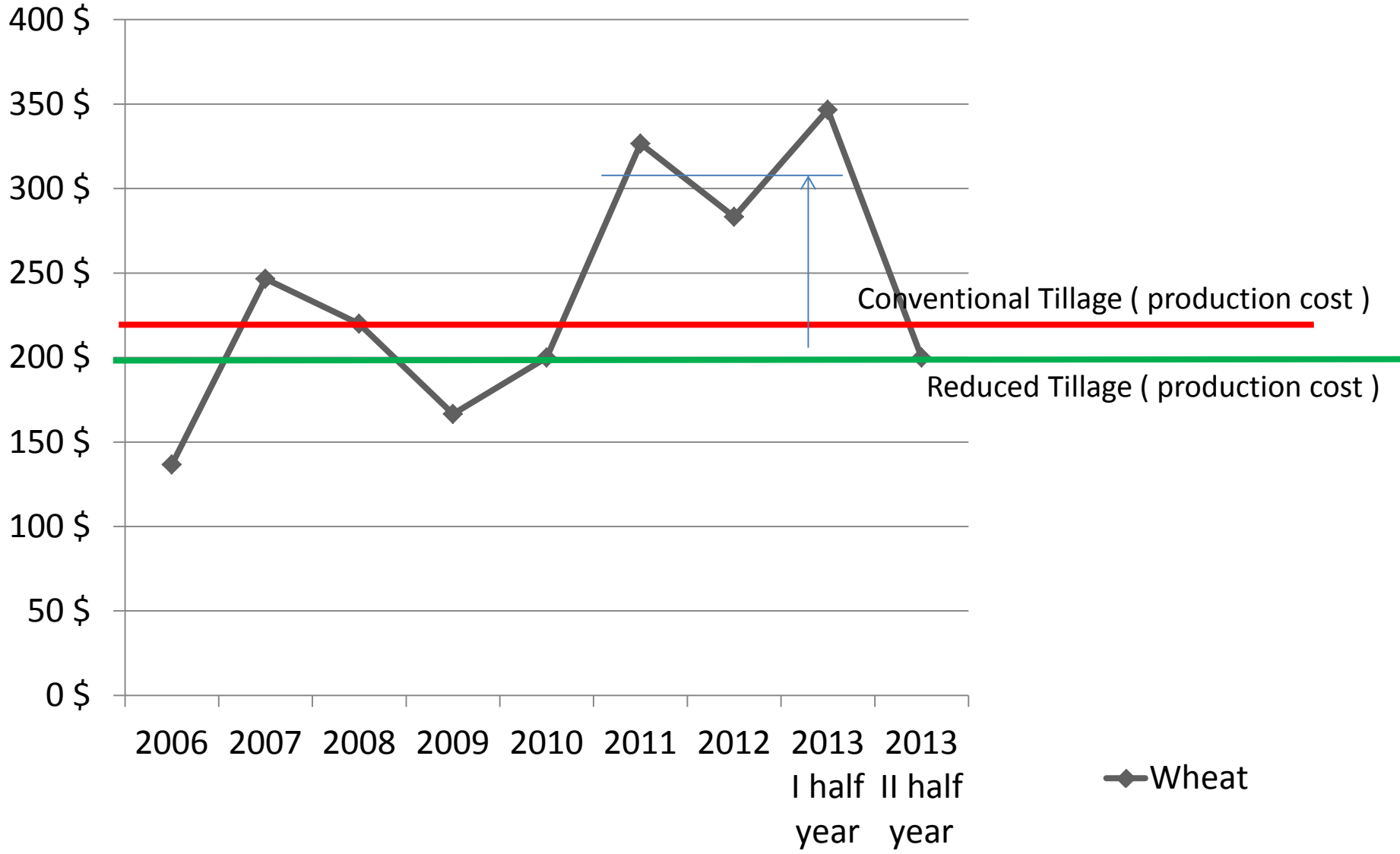
This leads us to the conclusion that new, innovative, ecologically friendly technologies enable farmers to lead intensive corn production and sustainable farming.

Rodzaj uprawki, wydajność ha/h	Rodzaj nakładu	Nakład bezpośredni na 1 ha	Nakład energii (MJ) na		Razem nakłady energii MJ/ha
			1 h pracy	1 ha	
Wysiew nawozów na ściernisko 12 ha/h	Praca ciągnika i rozsiewacza	5 min	155,0	12,9	55,6
	Zużycie paliwa	0,9 l/ha	-	36,0	
	Robocizna	5 min	80,0	6,7	
Talerzowanie roli 5 ha/h	Praca ciągnika i talerzówki	12 min	450,7	90,1	346,1
	Zużycie paliwa	6 l/ha	-	240,0	
	Robocizna	12 min	80,0	16,0	
Orka siewna 2,2 ha/h	Praca ciągnika i pługa	27 min	251,2	113,0	869,0
	Zużycie paliwa	18 l/ha	-	720,0	
	Robocizna	27 min	80,0	36,0	
Siew zestawem uprawowo - siewnym 4 ha/h	Praca ciągnika i agregatu uprawowo - siewnego	15 min	588,5	147,1	527,1
	Zużycie paliwa	9 l/ha	-	360,0	
	Robocizna/labour	15 min	80,0	20,0	
Razem:		60 min 34 l/ha			**1797,8**

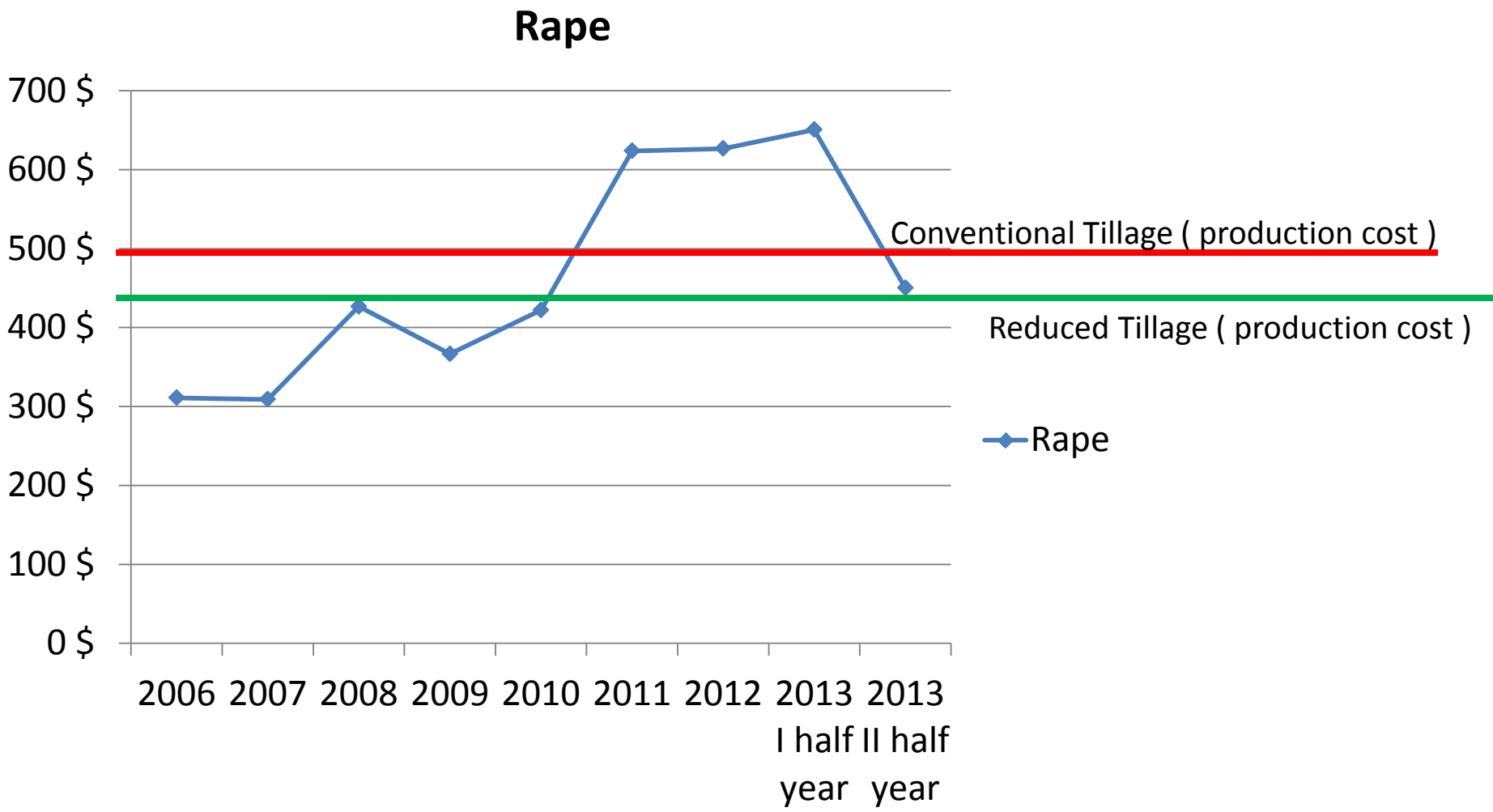
Rodzaj uprawki, wydajność ha/h	Rodzaj nakładu	Nakład bezpośredni na 1 ha	Nakład energii (MJ) na		Razem nakłady energii MJ/ha
			1 h pracy	1 ha	
Uprawa pasowa **(Strip - Till)** gleby kombajnem uprawowo - siewnym, wysiew nawozów N, P, K i mikroelementów, siew nasion	Praca ciągnika i kombajnu uprawowo - siewnego	20 min	409,8	163,9	**710,5**
	Zużycie paliwa/ fuel consumption	13 l/ha	-	520,0	
	Robocizna /labour	20 min	66,6	26,6	

Fluctuation of wheat prices in 2006 – 2013.

Production cost considering 7 ton yield per hectare.



Fluctuation of rape prices in 2006 – 2013. Production cost considering 3,5 ton yield per hectare.



Thank you for your attention.

Welcome to my farm on 28 July.