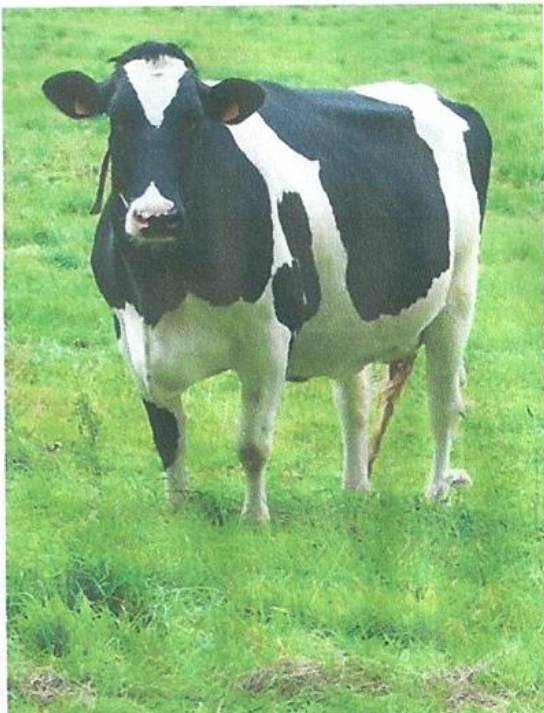




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## Project: A comparative study between agriculture in Oklahoma and agriculture in Picardie.



From 10/15/2011 to 10/01/2011.

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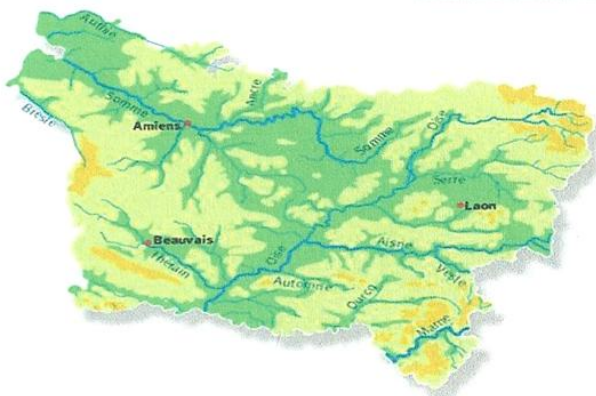


The State of Oklahoma, became the 46th state of the United States of America in November, 16<sup>th</sup> 1907. The shape of this state is like a saucepan as we can see of the map. Oklahoma is bordered by six states (look at the map below ). Oklahoma has a land area of 68,667 square miles (it is 177,847 square kilometers) and ranks 18 in the nation in size. Oklahoma has the second largest American Indian population of any state. Oklahoma has 2 "flourishing" economic sectors, it is the third largest natural gas producer in the nation and the fifth largest oil producer. The region of Picardie is situated in the north of France. Picardie has a land area of 7,489 square miles( it is 19,399 square kilometers) (look at the map at the bottom). Picardie is separated into 3 areas: the Aisne, the Oise and the Somme. The Somme is where I live. Picardie is opened to the sea: «The Manche ». The climate in Picardie is oceanic. Its economy is based on agriculture.

I chose to compare agriculture in Oklahoma and agriculture in Picardie since my father is a farmer, and I'm interested in this subject, I like my father job very much and to discover a different aspect of the farming business is something worth discovering and experiencing. Besides, I ride horses (I have 9 horses). It has been my passion for a long time, that's why I consider being a vet but I would like to work mainly with horses. Talking about agriculture was obvious. This trip to Oklahoma was great and extremely enriching.

I would like thank the representatives of the department for education, Mr Simmonds in particular of the "Rectorat" in Amiens, Elise Robillard ( she was particular by welcoming and nice, my host family and all the people who were involved to help me fulfill this project because without them, I would never have had a thrilling experience.

Oklahoma state



The Picardie region

## Agriculture is everywhere!

*Is it possible to live without Agriculture?*

Agriculture is present every time and everywhere. The soap in your shower was made of cotton-seed and soybean oil. The fat from cattle was also used to make that soap. If you take your breakfast with: eggs, toast, bread, waffles, cereal, milk, bacon, or juice, everything comes from agriculture. You probably do your homework, write down a telephone number... on a piece of paper. Paper represents agriculture because paper comes from the trees. Look around you. How many things are produced or derived from agriculture in Oklahoma and in Picardie?



*What is agriculture?*

Agriculture starts with growing and harvesting food fiber, and the care of the landscapes.

Food comes from plants and animals.

Fiber is the raw material from plants and animals that is used to make clothing and so many more. Cotton, linen, silk, and wool are all examples of fibers. The forests produce tree fiber for furniture, pencils...

Agriculture is present in almost every thing you eat or use each day.



There are some elements I read in Oklahoma's history museum about agriculture (in Oklahoma city). In the XIX<sup>th</sup> century the winter wheat became a major cash crop, grain elevators became a necessity. Harvested grain held very little value to farmers by remaining in the barn. It needed to be shipped by rail to the processing plants. A dispute arose between farmers and railroads over the location of grain elevators. Farmers wanted the elevators close to their land, while railroads wanted them placed far apart. The two groups compromised by placing grain elevators six-to-eight miles apart. Once arriving at the grain elevator, the grain was unloaded into the « boot » and lifted by belt and bucket conveyor to the cupola for bulk storage. Grain elevators graded, cleaned, dried and weighed the grain before shipping it by rail to the processing plants.





Grain elevators were made of wood, clay tile, steel, or concrete. Twenty thousand to forty thousand bushels of grain could be stored in wood elevators. Farmers often constructed clay tile elevators, which were relatively unexpensive, fireproof and easy to build.

**Agriculture in Oklahoma and in Picardie.**

**In Oklahoma:**

Agriculture has an important place in Oklahoma and it is very diversified. There are a lot of different cultures, different fields in livestock farming.

This tabular represent rank and value of production Oklahoma commodities 2006-2009.

Item	2006		2007		2008		2009		National Rank
	Rank	Value (Million Dollars)	Rank	Value (Million Dollars)	Rank	Value (Million Dollars)	Rank	Value (Million Dollars)	
Cattle & Calves	1	2,105	1	2,002	1	1,939	1	1,747	4
Poultry & Eggs <sub>1</sub>	2	553	3	635	3	688	2	653	15
All Hay	5	355	2	555	5	503	3	510	10
Hogs & Pigs	3	517	5	550	4	514	4	474	8
Winter Wheat	4	384	4	610	2	1,154	5	370	6
Milk Production	6	180	6	239	6	214	6	152	28
Corn for Grain	7	73	7	159	7	164	7	128	27
Cotton & Cottonseed	8	53	8	97	9	70	8	118	13
Soybeans	10	23	10	47	8	82	9	113	25
Grain Sorghum	12	22	9	48	10	46	10	41	4
Pecans	11	22	12	24	13	5	11	14	6
Canola <sub>2</sub>							12	9	2
Peanuts	13	11	13	14	11	16	13	9	9
Rye	14	4	14	7	12	7	14	5	1
Watermelon	15	3	15	6	14	4	15	3	13
Sunflowers <sub>2</sub>							16	3	9
Sheep & Lambs	16	3	16	3	15	3	17	3	25
Oats	18	1	17	2	16	1	18	1	24
<b>Total Value</b>		<b>4,309</b>		<b>4,998</b>		<b>5,410</b>		<b>4,353</b>	



About the wheat production, the farmer plants the seeds during the summer. The wheat plant, grows about six inches before the first frost. When the weather gets cold, the wheat stops growing. During this period, cattle graze the young plants. In spring the cattle is moved and the wheat begins to grow again. In early summer, the plants fade from dark green to tan and then to golden brown. Then the wheat is ready for harvest.

Green wheat



Golden brown wheat



www.branimirphoto.ca SK-1609-3816

Farmers use huge combines to harvest their wheat. A combine separates the grain from the stalk. The grain « travels » from the field by truck to storage bins. Wheat must be dried to prevent mold and spoilage. After, wheat may be either sold for food or cleaned and saved to be planted next summer.

Wheat is the major ingredient in most breads, rolls, crackers, cookies, cakes, spaghetti... and the list goes on! It is the high carbohydrate food that contains valuable protein, minerals and vitamins.

Cattle are an important source of food, cattle have been used for much more than food for centuries. Oxen were used to plow fields and provide transportation in the early days of the Oklahoma settlers.

There are some US beef statistics: cattle are raised in every state. Cattle and calves are the largest agricultural commodity.





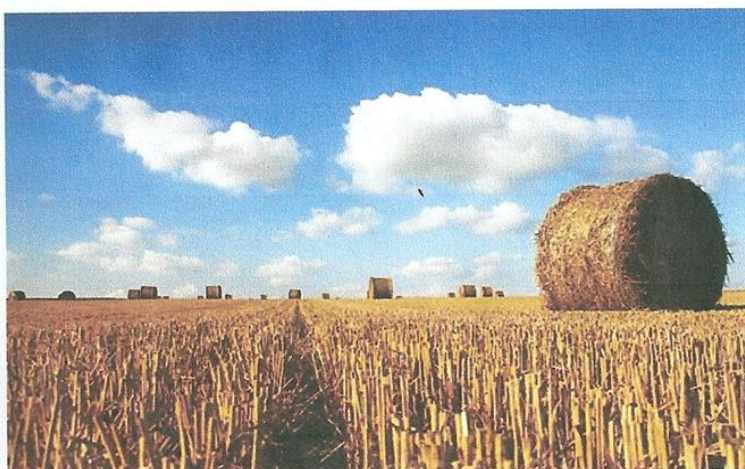
The average farm in Oklahoma consists of 405 acres (it's about 164 hectares). More than 16,500 acres of farmland (it represents 6677 hectares) were converted to organic production in the last five years.

### **In Picardie:**

In Picardie, agriculture has an important place too. The agriculture « makes » the landscape. In fact, 68% of the region's territory is occupied by agriculture It's about 3279088 acres (= 1327000 hectares). There are 13.850 farms in Picardie (60% are private farms and 40% are associated



farms. The average size of a farm is 242 acres (= 98 hectares) but farms in Picardie are getting bigger. The number of farmers lowers that's why, every farm takes a more cultures and grows. In ten years, the region lost 21 % of every labourforces. There are about 3000 farms which are medium sized and 7850 are large-sized. The large-sized farms represent 91% of the region production capacity. The problem in Picardie is that as many farmers want to expand that cultivated territories there are practically pieces of land that are let to lie fallow. 7,30% of the cereals produced in France have been cultivated in Picardie. Cereals represent 60% of the arable land in Picardie, in spite of diversified production.

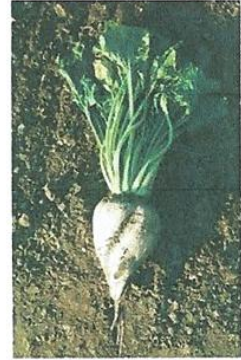


Wheat is cultivated by three quarters of the farms in Picardie. Wheat represents 44% of all the arable land and represents 73% of the cereals sowed.

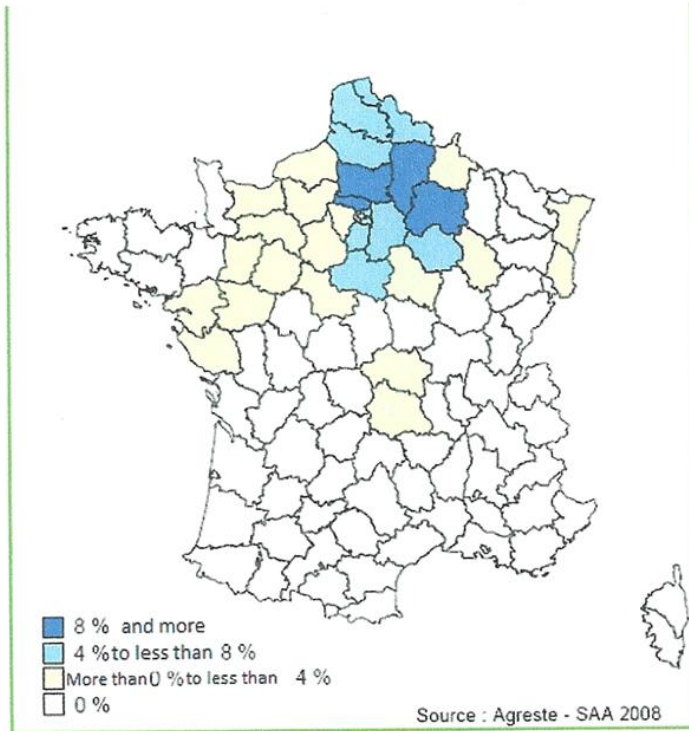
Wheat is sowed in September, It is harvested in Summer, usually at the end of July.

Picardie is the first region in the production of sugar beets and it is well-known for its production. More than the third of the French production is located in Picardie.

*Here is what a sugar beet looks like*



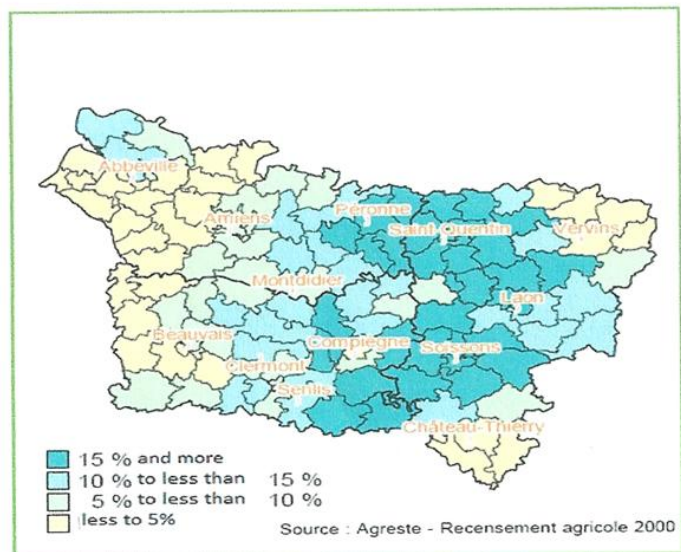
**Where to grow and cultivate sugar beet in the north of France:**



This map shows where the sugar beet is mainly grown.

**Focus on the Aisne area where the sugar beet is mainly cultivated:**

This map shows the part of the territories reserved to the cultivation of sugar beets in Picardie in 2008.

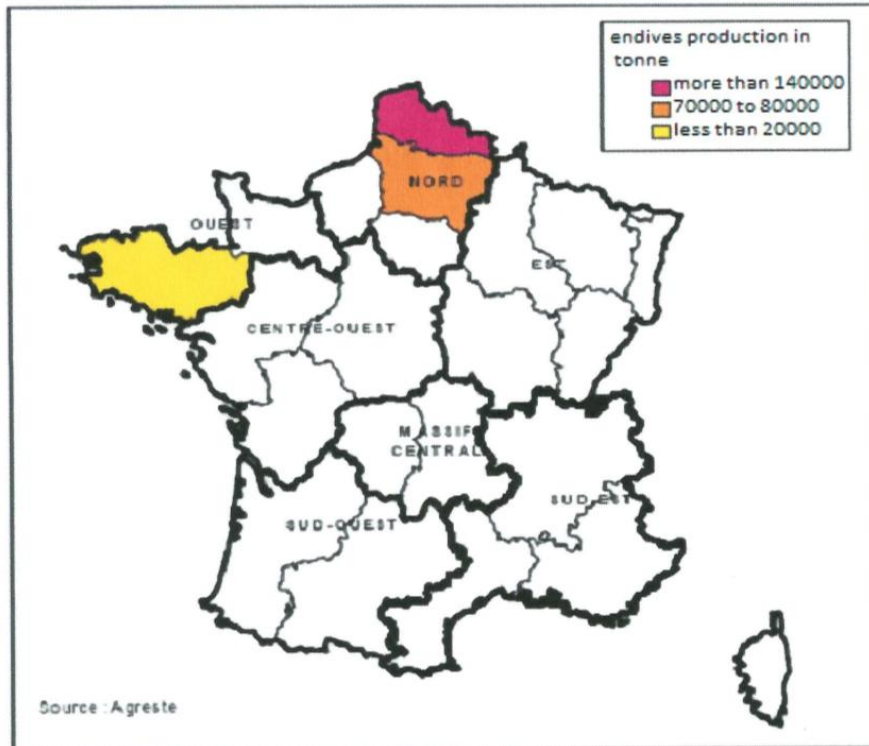




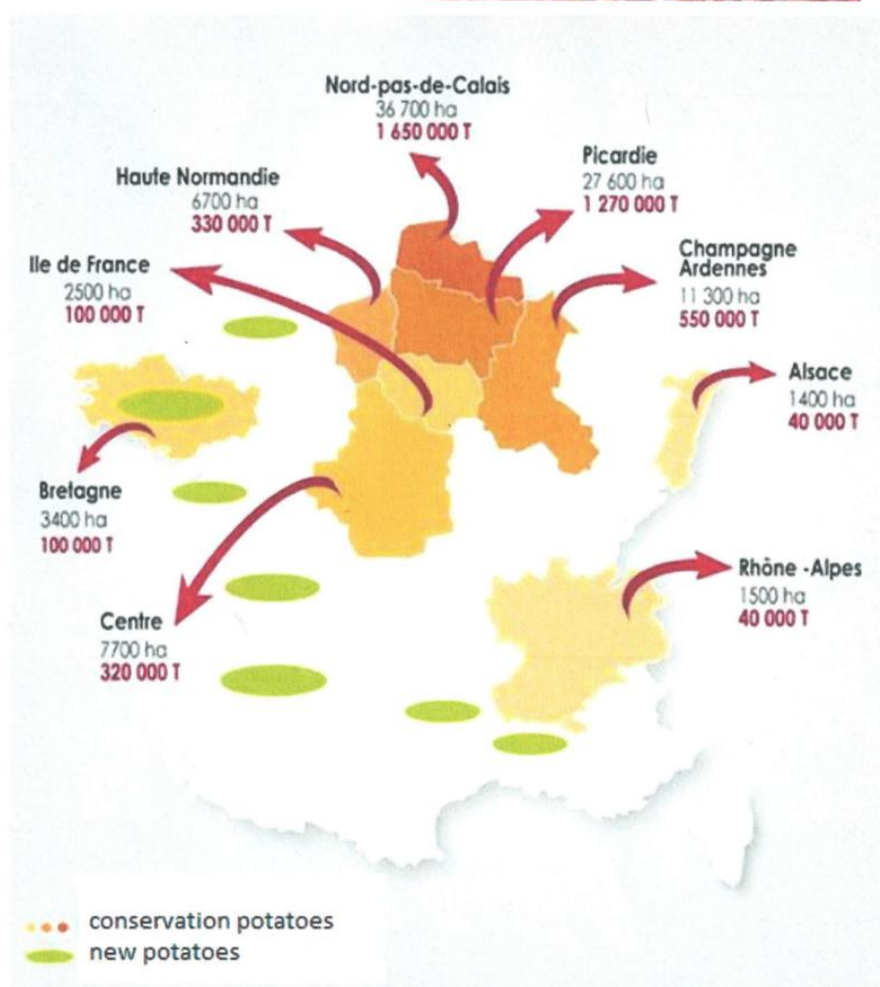
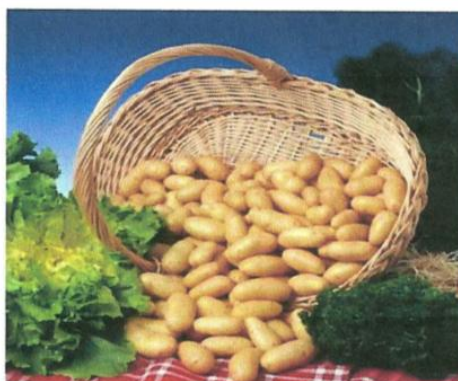
Picardie is the second « endives-growing area ». The Nord Pas-de-Calais and Picardie represent 90,8% of the national production and 59% of the European-Union of endives.



The production of « endives » in France:



Picardie is also the second area that produces potatoes in France with 270 000 tons of potatoes produced in Picardie a year.





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Picardie is the fourth producer of milk in France with 2,4 million liters every day, thus 880,6 million liters a year. There are 556 000 cattle in Picardie with 135 000 dairy cows.



There are 92 000 sheep and 181 000 pigs in Picardie.



## Agricultural school in Oklahoma and in Picardie:

### In Oklahoma:

I had the opportunity to visit an agricultural school, meet the students and teachers of the school. I learnt about their techniques. The students there have lessons (like in any other school) which they later put into practice.

Firstly, what is interesting and practical is the fact that the school owns its farm. They practice horticulture, each student spends about three hours a week in this sector. The school organizes its own sales.



They also have a livestock farming they breed! Different animals can be found such as sheep, cows, pigs and goats.





Each student has the responsibility of one animal which has been chosen at the beginning of the school year, when the school buys different animals. The students must look after their animals every day. The families help the students, they are involved in their studies. At the end of the year, there is a big contest among the students, judges choose the student whose animal has been well-looked after. The students can sell their animal.

The school has no financial help, there animals are bought thanks to the sales of pigs to the slaughterhouse, or the sales of flowers. Moreover, the school sends its students to farm fairs. In order to get the animals used to the school, they make them listen to music at the animals. The animals farm is situated at 1,5 miles from the school (about 2,4km). Before, they cultivated wheat and cotton but it was very expensive and for a school it was too complicated.

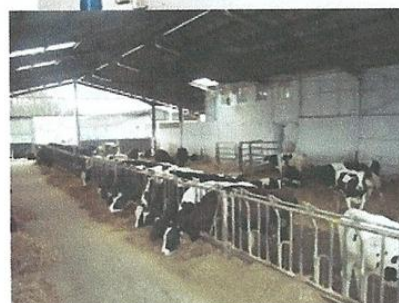
Now, let's be interested in the « teaching » itself: students are taught everything about agriculture; its laws, communication, the food that animals need. They have business lesson where students choose a project which they need to carry out. For example, one students chose to build a kennel: he designed it and sold it later.

The school is composed of 120 students, with 60% of girls and 40% of boys. The school was opened to girls in 1969. In Oklahoma, to become a farmer the students need a four years, and to become an « agriculture » teacher, it takes 8 years at college.

In Picardie:



I'm going to present The Paraclet school it's an agricultural school where my sister studied. In this School, there are about 450 students. The school is a state school. This school has trained students who had a passion for agriculture since 1886. Like in Oklahoma, in this school , students have « theoretical » lesson that they can put into practice later on school. The school farm is built on 390 acres (158 hectares), they have the advantage to be situated near the metropolitan town of Amiens, there is also a horse training centre near the school. That's why there is a horse-riding option offered to students. The school has also dairy cows with a quota of 287 600 liters a year. Every days students milk the cows. and milk. The Paraclet school does preservation of animals as cows and horses like the breed « Flammande » for the cow and the breed « trait du Nord » for the horses. This very particular breed comes from the north of France.





The students are at school for 15 days then they work on a farm for 15 days too, to learn professional life. They keep a contact with the school in order to get their examination. The students do what a proper farmer does in his farm: they plow and sow the fields, they harvest

At school, like the American student, the French ones study the laws, the different techniques that are used in agriculture and the types of food that animals need to have. The farm is involved in an association like la CUMA (it's a group of farmers who buy farm machinery together and they can use it whenever they need it). Last, thanks to their crops, the school can continue its activities and invest more.

**Presentation of a farm in Oklahoma and a farm in Picardie**

There is the one in Oklahoma:



The farm was built in the 1930s, it is composed of two areas separated by about 3,5 miles, it's about 5.6 km. The owner of this farm ( Mr. Mc Kinley) can breed 400 animals, he breeds black cows: angus cows for their meat.



The farmer's Son      Colette a French student      The leader of the farm      and me

Mr. Mc Kinley is not member of an association of farmers and he hasn't got any help for his farm. There are four people in the farm: his grand-father but he doesn't work a lot, he only helps from time to time, his son, he is 16 years old and he is in an agricultural school, there is an employee and the leader of the farm, the person that I interviewed for my project.



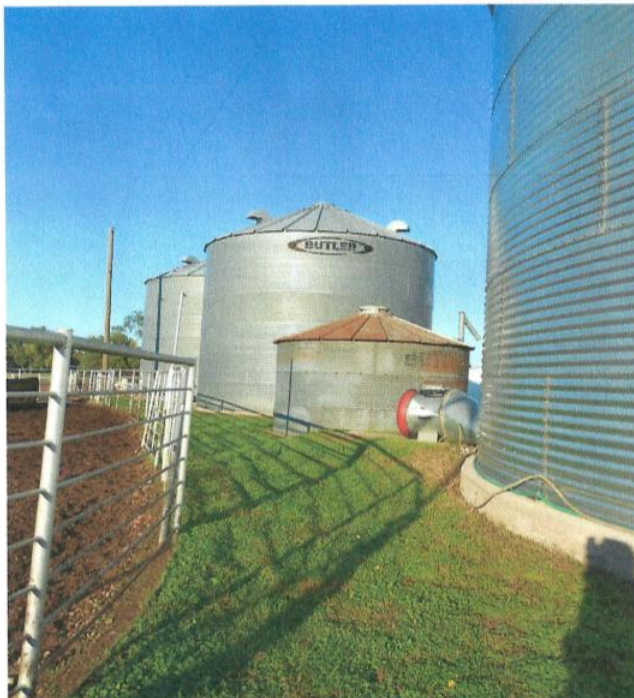
Mr. McKinley cultivates winter wheat of course with 120 acres (it's about 49 hectares) and corn. These two productions are sold for human consumption.

He also cultivates soy bean and alfalfa to feed animals.



About the wheat:

The farmer cultivates winter wheat ( it's the main cereal that is cultivated in Oklahoma). He uses some agrochemical must follow and respect strict regulations. Mr. McKinley keep his harvest of the year for the next year and stocks it in a silo in the farm.



A silo



He doesn't report to irrigation techniques since they are too expensive. He keeps a part of his harvest because the price of the wheat changes every day, it is around \$7.25 for one bushel (about 27kg of wheat) in October ( it's 200 euros for one ton). In 2011 it was a year of drought, so it was difficult.

The farmer's cows stay outside all the time, they are resilient cows. He doesn't use insemination techniques in order to select the best cattle or to guarantee the best breeding because, he is « too busy »and it takes too much time. Last, October, he was busy putting hay in his hay loft. His cows eat grass during the summer, corn, alfalfa and hay during the other seasons. He chose angus cows because it's the best breed for the meat.



Angus cows



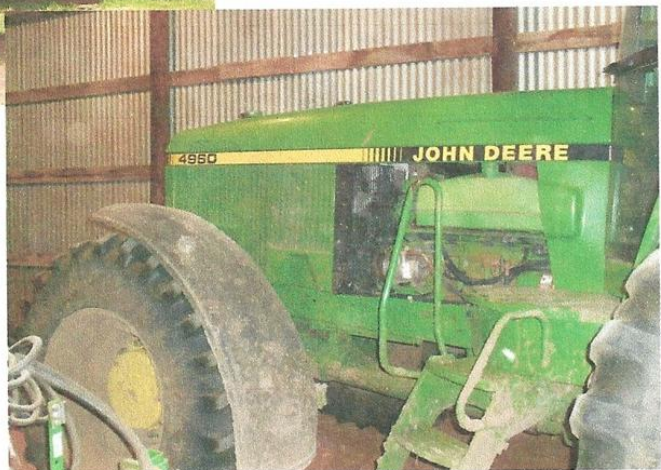
Mr. McKinley thinks that you can not succeed in this job if you haven't got any parents or grand parents who are already farmers. You need to have a farmer background to make your business keep going.

I had the opportunity to see the farmer's machinery: his tractors, his harvesters, drilling machines... and I noticed that all his machinery is of the brand: John deere. All his machines are adapted to the size (which is enormous) of his fields. He uses GPS, because his pieces of land are huge, this led his son to help him in the fields when he was young. His father definitely needed help!

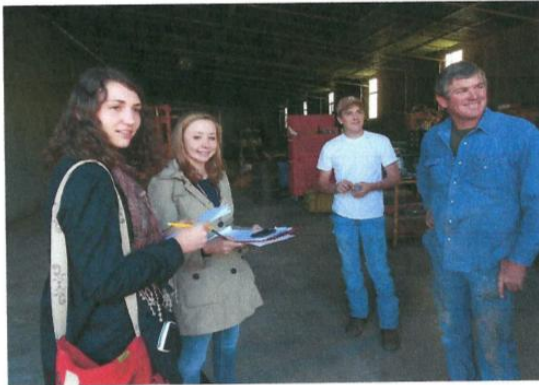
His drilling machine



His harvester with « his ten meters cut »



All his tractors are « John Deere » it's the American brand of course. This one is just «a sample ».



I would like to thank this farmer, because he let me take pictures of his estate. I met this farmer the last day of my trip, and it was a real chance for me. Moreover, he was kind enough to answer my questions, and my friend's questions (Colette) Colette, a fellow French student was also working on a project about agriculture but she focused on « wheat ».

#### In Picardie:

I'm going to present you the farm of my father, because it is located in Picardie and it is a farm that I know very well. The name of the farm is "EARL Du pied de Boeuf" My father works on his own. His farm is situated in the Somme valley. In a small village near Doullens, at about 18,6 miles (30 kilometers) from Amiens. This farm is a family business as his own father used to run this farm before.

Personally I have always been in the farm business. There is just one spot. The farm is composed of 272 acres (it's 110 hectares). My father also produces milk. He has got 30 milk cows, they are: Prim Holstein (It's the best breed for producing milk, in Picardie it's the major breed of cows). I must add the calves, heifers so there are 65 cattle on the farm.



My father is helped in his every day work by my grand-father but also my sister who wants to take the farm over when my dad retires. He is a member of association, He cultivates wheat about 118 acres (=47.80 hectares), barley: 33.6 acres (=13.6 hectares), rape represents 35 acres (=14 hectares), corn which represents 32 acres (=13 hectares), sugar beets with 14.8 acres (=6 hectares) and 37 acres (15 hectares) of meadows. My father doesn't keep the grain of the year for the next year, he sells everything but not at the same time. For example, the price of the wheat changes like in America but he can't stock the wheat in the farm, he stocks it in a grain elevator situated nearby, and when ever my father decides to sell the grain, he can do it. he can also keep a part of the grain to choose which moment will be the best for him ( when the price of wheat reaches the « top price »).



He uses agrochemicals like insecticides or pesticides but the French laws are very strict about their and farmers are regulated. The year 2011 was a good year for Picardie, contrary to the rest of France.

My father has financial helps he is insured in case of bad weather and he gets subsidies from the government to be competitive in the world market.

To have dairy cows in a lot of work. Firstly, it is necessary to milk the cows two times a day thanks to a milking machine ( look at the picture in the right-hand corner). My father spends about 1 hour to milk the cows and after he needs to clean and wash the machines. My father has a quota of 227 600 liters of milk a year.



The milk is stocked in a fresh tank (picture in the left) for three days. There the milk cools down, after those 3 days, it's time for the dairyman to collect the milk. The food given to the dairy cows is corn, soybean, dry pulp, hay, and mineral in winter because animals stay in cowshed. In summer, they eat grass in day time and at night they have corn because they go to the cowshed.

Every year, there are new dairy cows, because, the calves grow up. The dairy cows haven't any calves are sold to the slaughterhouse. The new dairy cows replace the others.



The types of food that dairy cows eat:



Corn is the main food eaten by cows. It's stocked in a silo, and it's harvested in September, the plant looks like is this one before the harvest:



Hay is important too. Dairy cows eat hay as much as they want. Hay is the dried grass harvested in spring.

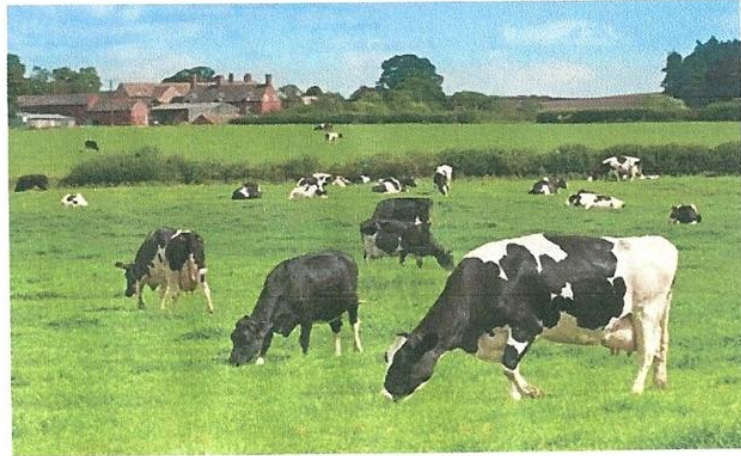


Straw is also « basic », it is essential to have a « comfortable » beds for the cows in their cowsheds



*Meadows in summer*

Cows eat grass at this time of the year.



Sugar beet pulp is the rest of the beet after the extraction of sugar. It's mixed with corn and given to cattle as extra food.

The soy bean is imported from America in part. It's a very important for the production of milk, because it is very rich.



Minerals represent another source of « food » they are mixed with corn too. Minerals guarantees a better milk quality. Sometimes cows have salt stones in their cowsheds.





## Conclusion

Time flies.. After some months, I realize now how lucky I was to profit from this American experience.

Of course I met very interesting people, I visited a farm that was incredibly his and different from the ones I know in Picardie...

I really experienced the American way of life (new food habits, the size of the houses, cars, malls...), everything was XXL especially people's sense of hospitality, and « hearts »...

This experience in Oklahoma was also linked to my passion for farming business and horses. I went to a ranch, again it's an experience I will never forget...

No only did I enrich and enlarge my knowledge, I also met fantastic people I will never forget. The people who hosted me were generous, kind, loving and very open-minded. This experience in Oklahoma was not « just for fun », the « ties » I managed to have last and my host family knows that they are more than « welcome » in our farm in Picardie. . I keep my fingers crossed and hope to see them back.

Thanks you again for having enabled me to have such a thrilling experience, Oklahoma is with me, forever...