

Granja didáctica universitaria Educación ambiental y producción animal sustentable para toda la vida

*Farm university teaching environmental education and sustainable animal
production for life*

Rey Manuel Quintana Martínez

Universidad Autónoma de Chihuahua

rquintan@uach.mx

José Roberto Espinoza Prieto

Universidad Autónoma de Chihuahua

jespinoza@uach.mx

Ana Celia Gutierrez Olivas

Universidad Autónoma de Chihuahua

agutier@uach.mx

Resumen

La mejor manera de aprender, es haciendo las cosas, el interactuar de los alumnos con el medio ambiente de una Granja, convivir directamente con animales de interés zootécnico, participar en laboratorios de productos lácteos y/o de cárnicos, de composteo, de reciclado, etc. permite reforzar el conocimiento, las competencias y habilidades necesarias en la relación del hombre: con la producción animal, con su entorno, en el amor y respeto a la naturaleza, basados en el modelo de la sustentabilidad y fortaleciendo la educación ambiental desde los niveles pre escolares hasta los Universitarios. La granja didáctica se concibe como un centro educativo que impulsa los procesos de aprendizaje, experiencial, reflexivo, colaborativo, artesanal, lúdico y activo.

Palabras Clave: granja didáctica, educación ambiental, sustentable.

Abstract

The best way to learn is by doing things, the students interact with the environment in a farm, live animals directly zootechnical interest, participate in labs dairy and / or meat, composting, recycling, etc. reinforces the knowledge, skills and abilities needed in the relationship of man to animal production, with its surroundings, in love and respect for nature, based on the model of sustainability and strengthening environmental education from pre school to the University. The educational farm is conceived as a school that promotes learning processes, experiential, reflective, collaborative, craft, playful and active.

Key words: teaching farm, environmental education, sustainable.

Reception Date: January 2013

Acceptance Date: April 2013

Introduction

This project stems from the need to provide an educational and recreational services to students of all ages through one of the most renowned educational institutions in the state in the process of development and learning, based on the different opportunities offered in the field and its interaction with farm animals, as well as different production laboratories, workshops and farms that are counted. To strengthen environmental education, sustainability models taught in educational systems; also generate revenue through recovery fees, grants systems, trainings, workshops, etc. In order to give greater sustainability to the academic units that make up the University.

The general objective is to develop in students, in feeling, thinking and acting in an environmental and natural awareness, through an ongoing, active and independent process.

Students forming their own knowledge in interaction with nature and the different physical, playful, exploratory and recreational activities in the university Teaching Farm.

The specific objectives to be developed in university teaching Farm are:

- Promote the student, the sense of belonging of natural resources that prey on livestock activities and the importance of the environment; through processes of adaptation and interaction with animals and the natural environment.
- Awaken in students the values of social life through group activities.
- Develop different expressions of student learning related to the activities of animal production on a farm, such as obtaining milk, meat, eggs, etc. For food and clothing associated with stimuli through the senses, allowing you to unfold under a sustainable model. (social, economic and ecological).
- Encourage students to the functional development of the sympathetic and expressive language, allowing you to acquire new knowledge through guided and free activities, and its coexistence with the farm animals.
- Strengthen environmental education through recycling, composting, biogas production, sustainable management of farm operations, etc.
- Develop comprehensive movement activities of students, allowing your body handling and interaction with farm animals, such as horseback riding, or ponny, tinker with rabbits, ducks, sheep, etc.
- Additionally it is a way to promote the University since an early age to their different academic units and races that comprise them. (Open House).
- Generate resources mediante recovery fees, to guarantee the teaching farm and the different animals that inhabit it, to help address their operating costs under a model of sustainability, as well as resources to get food grants and other support for students vulnerable areas.

- The educational farm will be a means of extension and outreach linking two of the guiding principles of the University: University Green University and socially responsible.

DEVELOPMENT

Operation didactic Farm is conceived in different phases:

PHASE I: Group of preschool and primary. Where he will work on:

Farm Day: 10.00 am to 5.00 pm Half Day: 8:00 a.m. to 12:00 p.m. morning and afternoon 2.30 pm to 6.30 pm. With the overall program content as:

- a) Learning with animals.
 - b) Ecological Education. (Recycling, composting, vermicomposting, etc).
 - c) open and governed Recreation.
- optional:
- d) pony ride and equine therapy.
 - e) children's breakfast food produced in the University Teaching Farm.
 - f) Sale of minor species to promote responsibility and care.

PHASE II: Group of students in secondary, high schools, technical schools. Where in addition to learning programs with animals, environmental education, etc. will work in the factories of meat products, and milk; where students can learn and participate in the preparation of cheese, yogurt, sausage, salami, etc.

PHASE III: Workshops and graduates in environmental education for school teachers, teachers of preschool levels, primary and secondary. In order to strengthen the sustainability models, and social responsibility.

Phase IV: Preparation of digitized material and interactive, to support environmental education in schools, and distance. Strengthen computer workshops in ecological and sustainable education.

Currently the academic unit has the following laboratories that make up the university teaching farm:

- * Swine Unit (with pig production in all stages)
- * Unit of sheep and goats.
- * Poultry unit (for the production of laying hens and fattening, turkeys, quail, ducks, pheasants, ostriches, etc.).
- * Unit minor species (for production rabbits, guinea pigs, chinchilla, etc.).
- * Unit of dairy cattle (breeding area has for calves, heifers and cows in production, along with milking parlor).
- * Unit Beef cattle (feedlots features and exposure to livestock fairs).
- * Workshop meat products (where you can make cuts of meat, sausages, smoked, etc.).
- * Workshop dairy products (where you can pasteurize milk, making cheese, yogurt, etc.).
- * Unit composting and recycling. (For the production of compost, vermiculture, biogas from livestock manure, etc.).
- * Recreational area with games and tables. (A total area of 15 ha.).



Figure no.1 Different animal production units

Additionally have 4 external properties:

- 1) An agricultural land in the south of State for forage production.
- 2) An agricultural land in the north of the City, for the production of grain, and in the future for expansion of laboratories beef and milk. And where is to establish a beekeeping unit.
- 3) Two cattle farms with areas for rangeland livestock production, agricultural areas, protected areas for wildlife in the mountainous area of the state. Where in the future you want to give classes and workshops on environmental education, sustainable management of cattle ranching, wildlife management, etc.



Figure no.2 Dairy Workshop

METHODOLOGY

The program was developed through guided tours where students from different educational levels participate, preponderadamente pre school and primary school, who are led by a group of monitors-undergraduate students in ecology and production systems, which lead the visit offering verbal explanations, incitu and implementing ecological dynamics related to environmental issues. The tour lasts 2 hours. Where is the opportunity

for children to interact with the different species husbandry told in laboratories or production units, as do some recycling activities.

Conclusion

According to statistics of the secretariat Extension academic unit in the last 6 years have posted a total of 38,224 students from 158 schools preschool and primary levels who have visited the Faculty livestock units, representing :

- An annual average of 6,300 students.
- A monthly average of 530 students.

And in the case of requesting a recovery fee or cooperation at the rate of:

Public Schools \$ 30.00 per student.

Schools Private \$ 50.00 per student.

School Breakfast \$ 20.00 per person.

For reference *** in didactic individual farms, the fee per student is on the order of \$ 120.00 to \$ 150.00.

Imply a historical annual income between \$ 230,000 to \$ 252,000 sufficient to support the costs of maintenance, supply and production of the various units that make up the didactic farm.

These generated in recent years, visits have been free, and without much advocacy and outreach by the university.

We believe that if we conduct a University-level advertising with mass media that have, such as radio university portal, newspaper, etc. And leaning from other academic units, we can grow in the number of students that visit us year after year.

In addition to support social service students to visit schools in our state, for advocacy, outreach, extension and training.

However the implementation of university teaching Farm represents an investment in refurbishment of infrastructure, as repopulation of zootechnical interest more animals, including deer, geese, peacocks, llamas, coin, etc.

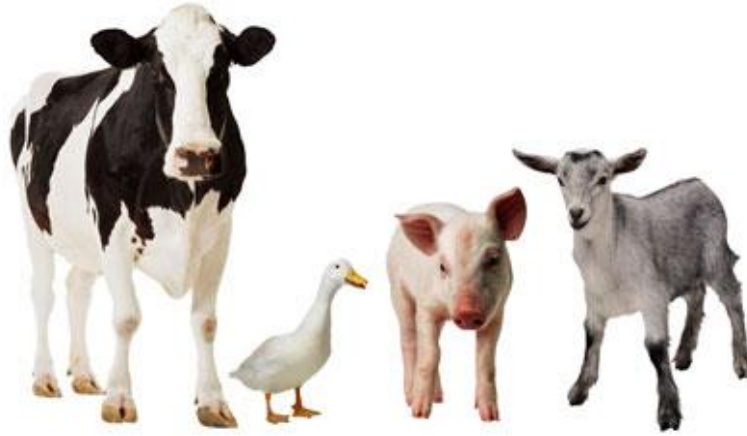


Figure. No.3 Some animal species preferred by children

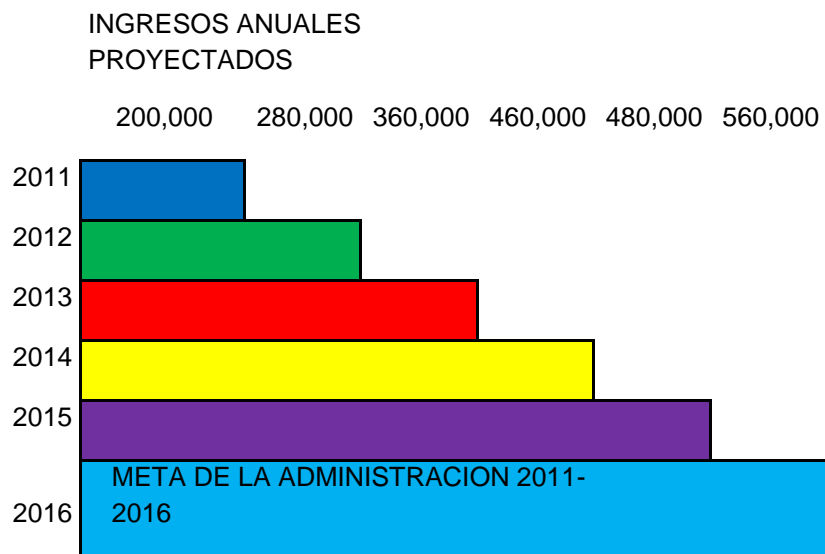


Figure No. 4 projections of annual revenues. With a percentage increase of 3% annual visitors
 According to information provided by the SEP (2008-2009) we had in our state:
 A total of 2,347 schools pre school level, with a total of 122,007 students.
 A total of 2,821 schools at the elementary level, with a total of 448.768 students.

At the secondary level, a total of 744 schools with a total of 169.989 students.

As the number of visiting students per year represent less than 3% of the total population of our state.

At the country level:

In basic education with a total of 222.350 schools, with a student population of 25,603,600.

This project not only to generate more revenue and new academic unit, but to promote the University and Faculty: As an actor decided to boost the powers of the new educational model from primary school and pre early age to higher education.

It will also allow greater integration with other academic units of the University, with the State Government, Municipality, SEP, DIF, and other educational institutions. And support social service, outreach, outreach and sociology by our students.

That resources generated allocate funds to allow:

- food for vulnerable students scholarships.
- Maintenance and improvement of production laboratories; currently account for 70% of the operating expenses of the Faculty.
- Promotion of undergraduate programs offered in the University.
- Funds for training material to strengthen environmental education.
- Implementation of a computer workshop for environmental training, etc.

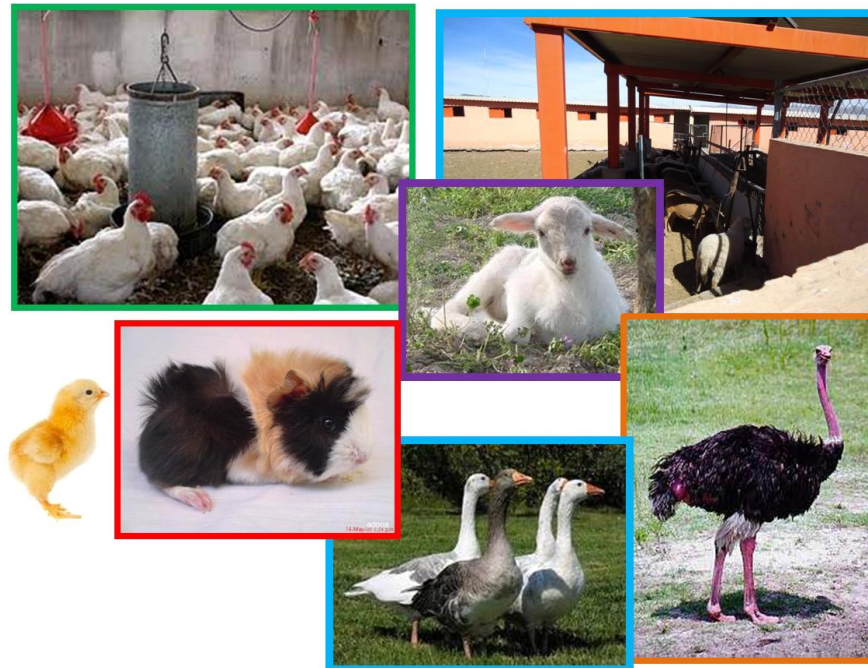


Figure no.5 images more species on display at the University Farm.

LABORATORIO DE RECICLADO Y COMPOSTEO



Figure no.6 Activities recycling, composting and vermicomposting.

This teaching platform fits perfectly with two of the guiding principles of the University: University and College Green socially responsible.



Learn together playing ... for a better future.

Bibliography

Castañer Balcells Martha (1998). Globality and interdisciplinary curriculum in primary education. Spain: INDE Publications.

Pedraza Rodríguez, Diego Miguel. (1992). Diagnosis, planning and development of an agricultural educational farm. La Salle University, Fac.de Agricultural Business Management.