

Equine Science Education in Sweden – 10 years of experience of the Equine Studies Program

A-L.Holgersson, L.Roepstorff, J.Philipsson, G.Dalin, S.Lundesjö-Öhrström,
K.Morgan, K.Ericson, M.Gottlieb-Vedi, A.Forslid. Department of Equine Studies,
Swedish University of Agricultural Sciences (SLU), P.O.Box 7046, S-750 07 Uppsala, Sweden.*

Abstract

The equine study program at SLU is a two-year program leading to a Diploma of Higher Education in Horse Management. The program started in 1994 and includes theoretical studies combined with practical applications and training. After a basic year students specialise to become riding instructors, stable managers or for various positions in the racing sector. Annually 150-200 students apply and after an admission test including riding and driving skills 45-55 students are enrolled.

The equine study program utilizes scientists from various disciplines at SLU as examiners and partly for the teaching of theoretical subjects, whereas well recognized trainers teach practical subjects. For this reason, the program is located at three different equine centres. Two are responsible for the basic year, and all three for the specialized second year. The main challenge in developing this program has been to get the university philosophy of learning into an established system of practical horse training and stable management, i.e. how to apply science in practice. In developing the curriculum various evaluations take place regularly among students, by horse industry representatives and through inquiries to alumni. Job market studies show that practically all students work in the horse sector. Many are interested in participating in continuing education during a third year, primarily in pedagogics, economics or riding.

Introduction

During the last ten years the horse sector in Sweden has developed in many ways. The number of horses has increased from about 200 000 to about 300 000. The total turnover in the horse sector has been estimated by the Swedish Board of Agriculture to 18 billion Swedish crowns (equivalent to 2 billion €). There are about 10 000 people full time employed and about 30 000 partly employed in the sector. As the horse has become more important, the need for education has grown rapidly. The horse also attracts people without any prior farming experience or biological knowledge, which also enhanced the need for education. There are, as a result of this, many new actors in the field offering different educations. Many of these educations serve as a very good base for the equine study program.

In 1994 the equine study program at the Swedish University of Agricultural Sciences (SLU) was established as a result of a survey by the government. It was concluded that there was a need for a higher education that combined practical and theoretical subjects at a qualified level. SLU was appointed responsible to establish and to be in charge of the new education program. The university had the scientific competence but not the practical possibilities and skills to arrange the education. Therefore SLU started collaboration with the three Equine National Centres in Sweden, Flyinge, Strömsholm and Wången, where the education can be held in an environment of horses. This

concept of establishing a network between animal science, veterinary medicine and practical skills and experiences makes the programme valuable and unique at university level.

A unique feature of this education is also that it is partially financed by the horse industry through a special agreement with the government. About half of the resources come from the ordinary university funding, whereas the other half results from reduced taxes on horse race betting. This type of financing was logic as the educational activities are located to equine centres owned by the horse industry.

Basic facts and special requirements for attending the program

The equine study program at the Swedish University of Agricultural Sciences (SLU) is a two-year program leading to a Diploma of Higher Education in Horse Management. There are a maximum of 55 students admitted annually to the program. After a basic year, students specialise to become riding instructors (max 35 students), stable managers (max 10) or for various positions in the racing sector (max 10). There are about 95 % female students and the average age is 21 years.

Annually 150-200 students apply and after an admission test 45-55 students are enrolled. In order to attend the equine programme there are special requirements on previous knowledge in both theoretical and practical areas. The candidates need to have completed an upper secondary education with special requirements in biology, mathematics and Swedish language to an approved level of mark. Those who apply for the riding specialisations also need a certificate of good riding skills from one of the upper level trainers or from an authorised riding instructor in Sweden. To meet the needs of practical experience with horses there is a requirement of experience with professional work with horses. There are three possibilities to fulfil this requirement. One is at least six months of fulltime professional work with horses. If the candidate has been a trainee at a place approved by the National Vocational Committee the time of experience can be reduced to four months of fulltime work. At these special places the trainee is supervised at a qualified level. The third possibility is a longer horse education at upper secondary level with at least 640 hours in horse related courses. If the candidates fulfil the above-mentioned requirements, they are selected for the second step, the admission test.

In the admission test for riders the riding skills of the candidates are assessed (both show jumping and dressage). In the admission test for candidates to the trotting sector driving skills are assessed and for candidates to the racing sector riding a racehorse is assessed. For all candidates their handling skills and their basic knowledge of horses are assessed. In an interview and a physical test the candidates' motivation and additional qualifications are examined.

The overall aim of the program

The overall aim of the education is that:

”the students should acquire the knowledge about horses, skills in horse management, role of the horse in society and interaction between horse and man that are required to be able to work with education, management, planning and consulting in the field of horses. The students are expected to handle horses in a proper way and have the capacity to understand and foresee the reactions of the horse considering ethical aspects and protection of animals that focus on safety and animal health. The students are expected to develop their capacities to be able to communicate in horse related areas at a scientific level.”

Both theoretical and practical teaching and training should be co-ordinated to develop a holistic view on methods and results in different kinds of horse management. The importance of ethical aspects and animal welfare are significant throughout the whole program.

The teaching methods include lectures, exercises, demonstrations, discussion groups, individual studies, student projects and study tours as well as practical training in stable and with the horse. The integration of theory with practice is very important. The students are encouraged to be active in search for knowledge, in critical thinking and in problem solving. Throughout their theoretical studies the students have good opportunities to search for literature and keep in contact with the university by the use of internet.

Basic year

For students who are admitted to the specialisation in riding and racing, the first year of study is located to Flyinge, the national stud in southern Sweden. Flyinge has about 200 horses, both for breeding, competition and education. There are several elite riders and drivers employed by or connected to Flyinge as competitors and teachers. (One can mention Peter Eriksson (world champion team-medallist in show jumping), Marie Kahrle (individual world champion in one hand driving) and Susanne Gielen, dressage rider at international level).

For students specialising in trotting, the program is located to Wången, a specialised trotting school in the north of Sweden. At Wången there are about 60 horses: standardbred, cold blood and pony trotters. Wången has exceptionally good facilities for education in the field of trotting and a staff professional in trotting sport.

Before 2004 the basic year of the trotting specialisation was at Flyinge together with the other students. The main reason for a common basic year for all students was the integration of students from different sports of the Swedish horse sector. It was not the differences that were in focus, it was the common feature of the horse. In 2004 it was decided to move the first year of the trotting specialisation to the trotting school Wången. The main reason was that Flyinge is a place specialised in breeding and sport for riding horses and the atmosphere of trotting could never be as established as at Wången. To compensate for the lack of integration the students at both Flyinge and Wången have two weeks or more of integration within other horse sport disciplines including study tours to the respective educational centres.

The aim of the first year is that the students shall acquire the basic knowledge about the biology of the horse, horse management, riding and driving. They are also expected to acquire knowledge about economy and pedagogics that are relevant in the horse sector. The content of the education should be related to scientific theories and experiences and rely on current research and development work

The studies are divided into theoretical and practical courses, which are closely integrated. The students are given responsibility for different kinds of horses, e.g. foals, young horses, broodmares, schooling- and competition horses.

Only fulltime studies are provided. One year of fulltime studies is equivalent to 40 points, 1 point=1 week of studies, i.e. 1 point is equivalent to 1,5 ECTS.

Table 1. Courses of the basic year

<i>Compulsory courses</i>	<i>Courses for the different specialisations</i>
Pedagogics, 3 weeks	Breaking a young horse (spec. riding and racing), 4 weeks
Introduction to equine studies, 3 weeks	Carriage driving, (spec. riding and racing), 3 weeks
Horse business economics, 5 weeks	Riding show jumping and dressage (spec. riding), 7 weeks
Horse ethology, genetics, nutrition and management, 8 weeks	Race horse riding (spec. racing), 7 weeks
Anatomy, physiology and health, 7 weeks	Trotting sport (spec. trotting) 10 weeks
	Riding and carriage driving (spec. trotting)

Second year, specialisation towards stable management at Flyinge

At the "stable management" specialisation there are 10 students and they stay at Flyinge for their second year. The aim of this specialisation is that the student should be able to work in stables with different forms of horse activities. They should also have enough knowledge and skills about the horse that are needed in the area of horse management and breaking young horses. The student shall have good skills in riding theory and riding practice at a certain level decided in the curriculum.

Table 2. Courses in stable management, second year

<i>Compulsory courses</i>	<i>Elective courses</i>
Business Economics, 5 weeks	Deepening in the biology of the horse, 5 weeks
Deepening in the biology of the horse, 3 weeks	Showjumping, 5 weeks
Breeding and stud management, 4 weeks	Dressage, 5 weeks
Leadership, 6 weeks	Deepening in carriage driving, 5 weeks
Riding and riding theory, 7 weeks	Riding a young horse, step 2, 5 weeks
Riding a young horse, step 1, 5 weeks	
Minor research project, 5 or 10 weeks	

Students in specialisation Thoroughbred racing sport at Flyinge follow the same courses as specialisation stable management except for the riding courses.

Second year, specialisation towards riding instructor at Strömsholm

The second year for 35 students is located to Strömsholm a national riding centre not far from Stockholm. Strömsholm is a historical place in educating riding instructors. There are about 200 horses at Strömsholm and very good facilities for riding, e.g. four large riding halls. Some of the most skilled trainers in Sweden are employed or connected to Strömsholm and therefore the students can get very qualified training. For their professional training they have practical periods at surrounding riding schools. When graduating they are qualified as good riders at intermediate level. The aim of this specialisation is that the student shall be able to educate pupils in riding and biology of the horse. They shall also have the knowledge and skills concerning the horse that are required for work at a riding school. The student shall have good skills in riding theory and riding practice at a certain level decided in the curriculum.

Table 3. Courses riding instructor, second year

<i>Compulsory courses</i>	<i>Elective courses</i>
Deepening in the biology of the horse, 3 weeks	Deepening in the biology of the horse, 5 weeks
Pedagogics and leadership, 7 weeks	Pedagogic project, 5 weeks
Riding school management, 8 weeks	Showjumping (120), 5 weeks
Riding and riding theory, 7 weeks	Showjumping (130), 5 weeks
Minor research project, 5 or 10 weeks	Dressage (LA:5), 5 weeks
	Dressage (MsvB), 5 weeks

Second year, specialisation towards trotting at Wången

The second year students stay at Wången. The aim of the second year is that the students shall have the knowledge and skills about the biology and management of the trotter required for training and managing, competition and breeding horses. They shall also have enough knowledge and skills concerning the trotting sport required for work with management, administration, education, trotting schools, consulting and enterprising in trotting business.

Table 4. Courses in trotting, second year

<i>Compulsory courses</i>	<i>Elective courses</i>
Deepening in the biology of the trotting horse, 3 weeks	Pedagogic project, 5 weeks
Breeding and stud management, 4 weeks	Training, 5 weeks
Deepening trotting sport, 10 weeks	Training riding and monté, 5 weeks
Minor research project, 5 or 10 weeks	Deepening breeding and stud management, 5 weeks
	Administration and organisation, 5 weeks
	Managing a trotting school, 5 weeks

Evaluations - essential tools in developing the program

The equine study program has, during these ten years been continuously developed, often as a result of various internal or external reviews. The demands from the horse industry have also had a big influence on the development of the program. Now the program is well established and has a good reputation but still the developing work continues.

There are several forms of evaluating the program. The first and most extensive form consists of course evaluations by the students at the end of each course. The first part of this evaluation is individual both for the student and the teacher. The second part of the evaluation takes place when all students meet the teachers (often a team of teachers) for a discussion, which is summarised to a mutual report. The individual and mutual reports are forwarded to those in charge of the program. There is also one overall evaluation at the end of the education in which the students summarise the whole education. This is a good opportunity to evaluate how the overall objectives of the program have been reached.

Other forms of evaluations can be done by groups of experts appointed to evaluate specific areas. It is very important for the program that the horse sector is engaged in the evaluations. The university has to ensure that the education meets the needs of the market.

Recently an extensive evaluation was accomplished by the Government Agency for Higher Education. It was an overall evaluation and the result focused on some very important questions.

One question was how to get the university philosophy of learning into an established system of practical horse training and stable management, i.e. how to apply science in practice. Another question was how to ensure that the student group is big enough to get the significant university climate of critical discussions. The last question is of special importance for the racing and trotting specialisations where the number of applicants and students admitted to the program is low. These questions have been central during all years but the university now puts special focus and resources on these questions.

To meet the need for more university philosophy of learning a review of the curriculum has been made. It now enables the students to choose between different elective courses. The students will become somewhat more specialised and attractive for the coming labour market.

One very important evaluation in relation to the labour market is questionnaires to those who already have the diploma. This is carried out every fifth year with questions about assignments, employment, salary and need of continuing education.

Labour market and future possibilities

The labour market is good, at least if the student is willing to move. In the autumn 2004 there was a questionnaire sent to those who have the diploma (about 260 answers) and it told that the unemployment was as low as 2%. The most common employment was at a riding school as a riding instructor and secondly as a teacher at agricultural upper secondary schools. This is of course a result of that riding instructor is the most frequent specialisation. Among all graduates there were about 85% working in the horse sector.

The trotting sport in Sweden is one of the leading in the world (together with America and France). During the last few years there has been an increase of several new activities in the trotting sector as a complement to the ordinary business. For example the trotting horse for training, monté and pleasure has become very popular. Around the country there has been a fast increase in the number of trotting schools where children can learn how to drive pony trotters. These new areas are very interesting for students with the equine study program qualifications. Today, the diploma from the equine study program is the most frequent criteria for all higher employments in the horse sector. This trend is expected to continue.

The questionnaire also showed that there is a big demand for continuing education. As many as 81% of those who have answered claimed they wanted to have more university courses, especially in economics, pedagogics and riding.

Continuing education, the subject Hippology and visiting professor.

As a result of an evaluation as early as in 1996 it was established that a two year long education is not long enough to meet the needs of a complete education with both theoretical depth and practical skills. There has been an ongoing discussion about a prolongation of the program. There are three directions that are discussed, i.e. economics, pedagogics and riding skills. From the autumn 2005 there is a possibility to attend a third year in economics and management in collaboration with the Department of Economics at SLU. A third year in pedagogics is planned together with the Department of pedagogics at the University of Uppsala, and is planned to be offered within a year. A third year in riding skills, for which it is a great demand, is possible to offer together with Flyinge and Strömsholm.

This year, 2005, the subject hippology has been established at SLU, and as a consequence it will be possible for students with the diploma to continue to a bachelor's degree in hippology and in the future there are opportunities for Masters and PhD degrees.

When creating the third year there is also a need for even more competent teachers. One way of developing the knowledge base, which is necessary for university education, is to invite visiting professors. As with university colleges of fine Arts, the equine study program at SLU intends to invite visiting professors for the subject "Arts of riding and driving". In planning the third year of riding there will be an international search for persons qualified to become visiting professors.

Internationalisation

The equine study program is open for all students coming from abroad. But, because the program cannot be given in English, there are only students from the Nordic countries who have the possibility to follow the program.

From the groups of students who have attained the Diploma there are at least 10% working abroad. Most of them work in Germany but also in the USA. Swedish grooms already have a very good reputation within the trotting and racing sectors in Europe and the USA. Now also better educated students go abroad for work and practice.

A two-year program as the equine study program has today limited possibilities to offer the students to take part of the curriculum abroad. An international aspect of the horse sector is of course part of the curriculum. However, through the Leonardo da Vinci-programme, graduated students have the possibility to go abroad for a period of 2-12 months to well renowned trainers, studs etc in an extensive net work in Europe. About 25 persons have taken this opportunity to work in France, Italy, Germany, Ireland, Great Britain and the Netherlands. An extension of the program with a third year, study periods abroad as part of the curriculum would be easier to include. With the Leonardo da Vinci-program teacher exchanges have also been made possible.