

ABSTRACT

Keywords: *horse sports, level of performance, training, morphological characters, stud farm*

The popularity enjoyed by equestrian show jumping and dressage competitions in the world makes the total economic impact of "the horse world" in Europe to be more than 100 billion euro per year and the estimates of labor forces for the equestrian sector to be approximately equivalent to 400,000 full-time jobs.

However, in order to successfully compete in these disciplines, especially in international competitions and the Olympic Games, it requires a sport horse with certain characteristics that will allow it to participate successfully at this level.

Currently sport horses that belong to the Romanian sport horse breed are not competitive on the international sport horse market because:

- quality - price ratio makes them undesirable compared to many breeds abroad (their price is higher or about the same as the sport horse breeds brought from Europe);
- the price for breeding and training a horse is the same whether his value;
- the lack of notable results of the breed on national and international level;
- international non-recognition of this breed of horses.

This gap can be explained by the low value of genetic material available for breeding in stud farms and also environmental conditions that are different from those of the private studs or from the ones abroad, conditions that refer to: food, shelter, specialized training personnel (from groomers, veterinarians, athletes and coaches) and facilities.

Given the above, we considered that a study on the current state of amelioration, performance level and the way this breed evolved, qualities and defects encountered, how to meet environmental conditions and training is opportune.

The research was conducted to determine the current level of amelioration and the competition performance of horses from stud farms and private farms.

Research will be conducted after a well structured plan whose aim is to organize the experiments in order to achieve the objectives. The achieving of each objective is ensured by designating laborious activities for each work step.

The overall objective of this research is to determine causality or force of association between farming systems and training of Romanian Sport Horse breed and performance level in dressage tests and obstacles courses.

In a first stage we aimed to determine the morphological characteristics and growth conditions (maintenance conditions, diet and exercise) of the sport horse. At this stage, the main objective is the study of biological material from stud farms and from individual's breeders, being composed from the analysis of morphological characteristics, conformation and constitution, in the scope of interpreting the body development and analysis of environmental conditions, nutrition and training.

The biological material is represented by horses from Jegălia stud farm and those of the following private farms: Farm Grădinaru Târgul Neamt, Farm Dora Bacau, Sport Club Rarăul Bacau and Sport Club Arkadia Bucharest, consisting of 54 individuals of which 32 individuals come from Jegălia Stud farm, Calărași County, and 22 come from the private farms listed above.

The working methods at this stage include body measurements with an advanced equipment, using: zoo-meter (for lengths and depths) and ribbon (for widths and perimeters), data is summarized in a remark document personally designed.

Through observation we established the constitution, while environmental conditions, nutrition and training were assessed by a questionnaire personally designed which was completed with the help owner / manager / coach.

The second step was intended for competitive performance analysis in show jumping and dressage competitions of the Romanian sport horse in each of the six Romanian national levels.

Biological material comes both from stud farms and private farms and represents the entire population of horses belonging to the Romanian sport horse breed legitimated at the Romanian Equestrian Federation, consisting of 163 individuals of which 80 individuals representing Romanian sport horses coming from stud farms and 83 come from private farms.

The working methods at this stage include the assessment, based on reports from Romanian Equestrian Federation, on breed and competitive period, serving also to calculate and evaluate the results in competitions, for each year individually, for each competition and for each horse.

The results of each horse were assessed as follows: for the first 5 places points were offered in order of obtained place, the number of points obtained was multiplied by 1, 1.5 or 2 as the level of difficulty raise.

It should be noted that the scores were calculated for each horse not for the couple rider/horse because we want an analysis of athletic performance of the horse and not those of the riders. Also there were taken into account and points were awarded only for the first 5 places in each test because according to regulation of the Romanian Federation awards are granted according to the scale of results to 25% of the number of starts, but at least the top 5 finishers. (FER Regulations Competition, 2013)

In the first stage of the research the aim was to analyze morphological characteristics, conformation and constitution and analysis of environmental conditions, nutrition and training for the two types of breeders to compare the two systems: stud farms versus private breeders.

Following research in terms of morphological characters we can say that:

- ✓ the Romanian sport horse stallions and mares breed in stud farms, according to national criteria of evaluation and classification enter into class Record;
- ✓ sport horses with both parents from Romanian breeds, the ones with one parent from Romanian breeds and sport horses with both parents from foreign breeds breed on the private farms enter, according to national criteria of evaluation and designation horses, in class Record;

The conclusions drawn from research undertaken in this phase have revealed that, in both case of stud farms and private breeders, much of the improvement objectives were met.

Regarding growing conditions and training of horses we can say that:

- ✓ there are differences between the two systems, meaning that, while in the stud farms hall type shelters still tend to prevail to the detriment of individual boxes, and there are still problems related to reduced frequency of cleaning/shoeing and deworming, private system results reveals that hall type shelters were removed one hundred percent in favor of individual boxes and shoeing/cleansing frequency is 9 times a year and deworming 4 times a year;
- ✓ a big problem is still the lack of vaccination against equine influenza and tetanus for horses who did not participate in competitions for both farming systems;
- ✓ also while in stud farms watering is still manual, and nutrition is compliant with the industry, mentioning the lack of special concentrates commercially available, in the private sector there is a preference for watering automatic and nutrition differ from the rules

of industry by the lack of straw and juicy fodder and by introducing special concentrates commercially available;

- ✓ regarding the conditions for the training of horses in stud farms, a problem that arises from the analysis of results is related to the lack of qualified staff: trainers, professional athletes and groomers, as well as a preference for training jumps at the expense of the longeline, dressage and outdoor training;

- ✓ in terms of horse training conditions in the private sector a problem is the lack of indoor arenas 60x20 m in size, extremely important in the economy of training.

When it comes to horse breeding, performance levels in show jumping/dressage of the foals obtained is particularly important as the basic criterion in terms of profits obtained and profitability of this branch.

For this reason, in the second part of the paper we analyzed the results of the Romanian sport horse in competitions to compare the efficiency of the two systems.

Thus, ***on the competition performance of Romanian horse sport in dressage***, research reveals that 66.67% participate on FE levels (the lower as difficulty) and only 4.76% on BA level (those with the highest level of difficulty) and the last year when the Romanian sport horse participated on BA level was 2013.

The results obtained from statistical analysis reveal that:

- ✓ for the competitive level variable the results from the statistical analysis presents a statistically significant differences for the 0.05 significance level for competition results 2012 variable, and a statistically significant differences for the 0.001 significance level for variables: competition results 2013 and competition results;

- ✓ for the competition period variable the results from the statistical analysis presents a statistically significant differences for the 0.05 significance level for competition results 2013 variable, and a statistically significant differences for the 0.001 significance level for competition results variable;

- ✓ for the type of Romanian sport horses the results from the statistical analysis presents a statistically significant differences for the 0.05 significance level for variables: competition results for the DC level 2012 and competition results.

On the competition performance of Romanian horse sport in show jumping, the research reveals that 44.63% participate on FE levels (the lower as difficulty) and only 8.26% on BA level (those with the highest level of difficulty) and 41.32% of the Romanian sport horses participate every year from 2012 to 2014 in show jumping national competition.

The results obtained from statistical analysis reveal that:

✓ for the competitive level variable the results from the statistical analysis presents a statistically significant differences for the 0.001 significance level for variables: competition results 2012, competition results 2013, competition results 2014 and competition results;

✓ for the competition period variable the results from the statistical analysis presents a statistically significant differences for the 0.01 significance level for competition results 2013 variable, and a statistically significant differences for the 0.001 significance level for competition results variable;

✓ for the type of Romanian sport horses the results from the statistical analysis presents a statistically significant differences for the 0.001 significance level for variables: competition results for the FE level 2014 and competition results 2013, a statistically significant differences for the 0.01 significance level for competition results variable, and a statistically significant differences for the 0.05 significance level for variables: competition results 2014, competition results for the FE level 2013 and competition results for the DC level 2013;

✓ for breeder variable the results from the statistical analysis presents a statistically significant differences for the 0.01 significance level for variables: competition results 2013 and competition results, and a statistically significant differences for the 0.05 significance level for variables: competition results for the FE level 2013 and competition results for the DC level 2013.

In conclusion we can say that things are going in the right direction, but more things still needs improvement. The conclusions drawn from this stage of the undertaken research have revealed that, on the performance level achieved by Romanian horse sport in the national competitions of dressage and show jumping, breeding Romanian horse sport is better for the private breeders, compared with the stud farms.

From all presented so far, it clearly shows that for the efficient breed of horses in Romania (and beyond) it is required a combination of both genetic amelioration and also and an improvement in farming conditions (breeding, feeding, training, housing, etc.). For the future, it is imperative to compare the results of the Romanian sport horse breed with other horse breeds participating in the Romanian show jumping and dressage championship.