

Forages for horses programmes

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Introduction A survey by the American Horse Council in 1996 showed there were 6.9 million horses in the USA with 1.9 million horse owners and 7.1 million people involved in allied industries. The value of the USA horse industry to the gross national product is \$25.3 billion. Nationally, 2.2 % of households own a horse but 4.9 % of households want to own a horse. Ohio's horse industry has 192,000 horses (7th nationally) and generates \$776 million per year. Most of the 48,500 homes with horses in Ohio have 2-5 horses with 1-2 ha of land. Many exercise lots and high-use areas are little more than mud lots. Since each horse needs a minimum of 0.8 ha for feed, many pastures and hay fields are over-grazed and poorly managed leading to soil erosion, nutrient management problems with excess manure, and water quality problems. Most horse owners have a need for basic education to help them make good decisions on pasture and horse management. The educational resources directed at the 263,500 Ohioans involved in the horse industry are minor compared to its size. The objectives of the Ohio Horse Program are: 1) To increase awareness, knowledge and skills for horse owners on managing hay fields and pastures to produce quality horse forages, 2) To change management practices of horse owners to produce higher quality forages by learning how to better evaluate, produce, store and manage quality forages, 3) To develop a curriculum and provide a notebook of indexed referenced material to all programme participants, 4) To establish a grass plot programme to compare forage varieties for yield and quality, and 5) To provide field day and pasture walk experiences.

Materials and methods A forages for horses curriculum was developed to create a notebook and PowerPoint presentations on forage species selection and establishment; soil fertility; hay quality, evaluation and storage; pasture management and renovation; poisonous plants; digestive physiology, horse nutrition; manure management; and economics and marketing. The curriculum was taught in two three-hour sessions (six hours total) at 21 seminars around the state of Ohio in the last four years. Attendance ranged from 15 to 100 with 630 total participants. Over 1100 people have attended seminars presented to Equine Affair (a large trade show in Columbus, Ohio), Ohio Forage and Grassland Conference, and Farm Bureau events. A 400-page notebook was compiled with 10 sections as a reference guide, and 500 of these notebooks sold in two years. A forage plot and grazing research programme was established with the University of Findlay Equestrian Center located on a 30 ha site with 350 horses. The research goal is to study and collect data on mainly grass varieties and mixes. Most horse owners forage preference is for a grass-based diet coming from either hay or pasture. The following research plots have been established: 1) 32 replicated grass variety plots (three replicates) to collect yield, quality, and persistence forage data. 2) A horse preference grazing study to evaluate four different grasses replicated three times, and 3) Evaluating 20 new native cool-season grass varieties of Virginia Wild Rye (three replicates). Two annual Forages for Horses Field Days have been conducted (175 people) along with pasture walks at participants' farms.

Results Over 1700 people attended 21 two-night seminars or seven statewide events in the last four years. Interest in the programme continues to grow. In-depth evaluations were conducted for nine Forages for Horses seminars (374 total participants) in two years. Participants had an average of three horses and a range of 2 to 50 horses on an average of 3.3 ha. Eight different topics were presented at each session with a rating of usefulness from "not useful" = 1 and "very useful" = 4. The topics and respective scores were: Nutrition of Horses on Pasture (3.5), Fertility & Soils (3.3), Pasture Establishment & Renovation (3.7), Understanding Plant Growth (3.3), Forage Species Selection (3.4), Poisonous Plants (3.8), Management of Tall Fescue (3.2), and Hay Quality and Storage (3.7). The most useful topics were Poisonous Plants – followed closely by Hay Quality and Storage, and Pasture Establishment & Renovation. The impact of these seminars was rated by asking if the seminar met expectations. Results indicated 62% exceeded expectations, 38% meeting expectations, with no one indicating it fell short of expectations. Participants attending the two Forages for Horses Field Day Programs indicated 83% exceeded expectations and a rating of 3.53 on a 4-point scale for overall usefulness of the information.

Conclusions The Forages for Horses Program and the forage research plots helped horse owners maximise economic value from their forage resources and manage their pasture and hay fields to minimise environmental problems.