

## List of Figures

Figure 1.1	Proportions of dry weight of organic materials relative to the growth stages of cool season grasses.....	44
Figure 1.2	The scheme of carbohydrate fractions for the horse, as a comparison of proximate analysis and fractions as digested.....	45
Figure 1.3	Metabolic and endocrine fluctuations associated with the feeding-fasting cycle.....	46
Figure 1.4	Growth of Thoroughbred foals from birth to 700 d of age.....	47
Figure 1.5	Endochondral ossification at the cellular level of the articular-epiphyseal or the metaphyseal growth cartilage complexes.....	48
Figure 1.6	The regulation of bone growth is orchestrated by the actions of many hormones and growth factors.....	49
Figure 2.1	The comparison of non-structural carbohydrate, neutral detergent fiber and acid detergent fiber in fiber sources used in these studies.....	74
Figure 3.1	Monthly body weights of 1994 Thoroughbred foals from birth to weaning and from weaning to sale.....	84
Figure 3.2	Monthly body condition scores of 1994 Thoroughbred foals from birth to weaning and from weaning to sale.....	85
Figure 3.3	Girth circumference and growth curve for body length of 1994 Thoroughbred foals from birth to 16 mo of age.....	86
Figure 3.4	Growth curves for wither and hip heights of 1994 Thoroughbred foals from birth to 16 mo of age.....	87
Figure 3.5	Growth curves for physis and fetlock circumferences of 1994 Thoroughbred foals from birth to 16 mo of age.....	88

Figure 3.6	Growth curves for forearm, front and hind cannon lengths of 1994 Thoroughbred foals from birth to 16 mo of age .....	89
Figure 4.1	Monthly body weights of 1995 Thoroughbred foals from birth to weaning and from weaning to sale .....	98
Figure 4.2	Monthly body condition scores of 1995 Thoroughbred foals from birth to weaning and from weaning to sale .....	99
Figure 4.3	Girth circumference and growth curve for body length of 1995 Thoroughbred foals from birth to 16 mo of age .....	100
Figure 4.4	Growth curves for wither and hip heights of 1995 Thoroughbred foals from birth to 16 mo of age .....	101
Figure 4.5	Growth curves for physis and fetlock circumferences of 1995 Thoroughbred foals from birth to 16 mo of age .....	102
Figure 4.6	Growth curves for forearm, front and hind cannon lengths of 1995 Thoroughbred foals from birth to 16 mo of age .....	103
Figure 5.1	The relationship between a 2 cm cross section of equine third metacarpal bone and radiographic bone aluminum equivalents .....	122
Figure 5.2	Estimated bone mineral content in 1994 Thoroughbreds from approximately 4 to 12 mo of age .....	123
Figure 5.3	Estimated bone mineral content in 1995 Thoroughbreds from approximately 4 to 12 mo of age .....	123
Figure 5.4	Estimate bone mineral content in Thoroughbreds from approximately 4 to 12 mo of age. Data are combined from 40 foals born in 1994 and 1995 .....	124
Figure 5.5	Standardized subjective scores for physisitis at the carpus, front and hind fetlocks of 1994 Thoroughbreds from approximately 4 to 12 mo of age.....	126

Figure 5.6	Standardized subjective scores for joint effusion, angular limb deformities and flexural limb deformities of 1994 Thoroughbreds from approximately 4 to 12 mo of age.....	127
Figure 5.7	Standardized subjective scores for physitis at the carpus, front and hind fetlocks of 1995 Thoroughbreds from birth to one year of age.....	128
Figure 5.8	Standardized subjective scores for joint effusion, angular limb deformities and flexural limb deformities of 199 Thoroughbreds from birth to one year of age .....	129
Figure 6.1	Fat, protein, lactose and solids in mares' colostrum sampled at 6 to 12 h after foaling .....	142
Figure 6.2	Immunoglobulin G concentration in mares' colostrum sampled at 6 to 12 h after foaling .....	143
Figure 6.3	Linoleic acid expressed as a percentage of total fatty acids in mares' colostrum and milk .....	144
Figure 7.1	Plasma glucose changes in two mares in response to an oral glucose dose of .2 g/kg BW (a) or a meal of oats (b) .....	160
Figure 7.2	Plasma changes in glucose, insulin and cortisol concentrations in response to an oral glucose dose in mares during the third trimester of pregnancy .....	161
Figure 7.3	Plasma changes in glucose, insulin and cortisol concentrations in response to an oral glucose dose in mares during early lactation .....	162
Figure 7.4	Plasma changes in glucose, insulin and cortisol concentrations in response to an oral glucose dose in mares during late lactation .....	163

Figure 8.1	Seasonal variation in pasture composition of hydrolyzable carbohydrate, as analyzed by direct methods, versus non-structural carbohydrate, as calculated by difference .....	173
Figure 8.2	Estimation of hydrolyzable carbohydrate from non-structural carbohydrate using data from the starch and sugar concentrate (a) or the fat and fiber supplement (b).....	174
Figure 8.3	Estimation of hydrolyzable carbohydrate from non-structural carbohydrate using data from 107 pasture and hay samples.....	175
Figure 8.4	Estimation of hydrolyzable carbohydrate from non-structural carbohydrate. Linear equation (a) fit using combined data from a starch and sugar supplement and a fat and fiber supplement. Quadratic equation (b) was fit using combined data from pasture and hay samples and a fat and fiber supplement .....	176
Figure 8.5	Estimation of hydrolyzable carbohydrate from non-structural carbohydrate. The quadratic equation was fit with data combined from pasture and hay samples, a fat and fiber supplement, and a starch and sugar supplement .....	177