

Supplementary Material SI: Composition of the groups of horses grazing in the study sites. The four horses observed in each group are identified with an "X".

| 1A / Site A | | | | | | | |
|--------------------|--------------------|---------------|--------------|----------------------------------------------------------------------------|-------------------|--------------------------------|--|
| Code | Age (years) | Gender | Breed | Comments (in the breeder's words) | GPS collar | Behavioral observations | |
| FL | 4 | Mare | Arabian | The dominant figure among the young horses of the group; likes to explore. | yes | X | |
| GL | 3 | Mare | Arabian | A leader that often starts group movements. | yes | X | |
| GE | 3 | Gelding | Arabian | A follower that stays close to older horses and follows them. | yes | X | |
| GR | 3 | Gelding | Arabian | More a follower, not a leader. | - | X | |
| - | 5 | Gelding | Arabian | Lame horse that is often injured. | - | - | |
| - | 12 | Mare* | Arabian | Fearful with people but dominant with other horses. | - | - | |

* with suckling dam.

| 1B / Site B | | | | | | | |
|--------------------|--------------------|---------------|--------------|----------------------------------------------------------------|-------------------|--------------------------------|--|
| Name | Age (years) | Gender | Breed | Comments (in the breeder's words) | GPS collar | Behavioral observations | |
| FA | 4 | Mare | Barb | Quiet mare, arrived at the farm at two years of age. | Yes | X | |
| HM | 2 | Gelding | Arabian | Likes to play and come close to people. | yes | X | |
| HI | 2 | Mare | Arab-barb | Very curious and close to people. | - | X | |
| HL | 2 | Mare | Arabian | Rather shy. | yes | X | |
| - | 8 | Mare | Arabian | Quite a dominant character. | - | - | |
| - | >18 | Mare | Arabian | Slower than other horses but still leads many group movements. | - | - | |

Supplementary Material SII: Chemical composition of plant parts collected in the study

| Sample # | Site | Type | Code | Part | Class by NIRS | DM | MM | CP | Cfib | NDF | ADF | ADL | IvDMD | IvOMD |
|----------|------|------------------|------|--------------------|----------------|------|-----|------|------|------|------|------|-------|-------|
| 127463 | B | Grasses | G | Green | Class 1 | 39.9 | 8.6 | 10.5 | 30.9 | 62.7 | 33.6 | 4.6 | 50.9 | 47.9 |
| 127471 | B | Grasses | G | Green | Class 1 | 40.4 | 9.9 | 10.0 | 30.2 | 62.2 | 33.1 | 4.4 | 50.9 | 48.4 |
| 127476 | B | Grasses | G | Green with flowers | Class 1 | 44.9 | 6.8 | 7.0 | 31.1 | 60.7 | 32.0 | 5.2 | 52.1 | 50.9 |
| 127464 | B | Grasses | G | Green with flowers | Class 1 | 35.7 | 4.8 | 6.1 | 39.2 | 69.0 | 39.5 | 5.8 | 42.9 | 40.4 |
| 127465 | B | Grasses | G | Green with flowers | Class 1 | 43.5 | 6.2 | 6.5 | 37.7 | 67.7 | 38.6 | 5.5 | 44.7 | 42.1 |
| 127472 | B | Grasses | G | Green with flowers | Class 1 | 44.7 | 7.8 | 7.2 | 36.4 | 66.9 | 38.6 | 6.4 | 43.6 | 41.7 |
| 127441 | A | Grasses | G | Green | Class 1 | 33.0 | 8.4 | 13.8 | 33.1 | 66.2 | 35.9 | 4.8 | 49.4 | 45.1 |
| 127436 | A | Grasses | G | Green | Class 1 | 38.4 | 7.8 | 12.3 | 33.7 | 67.0 | 37.2 | 5.5 | 48.7 | 45.0 |
| 127442 | A | Grasses | G | Green with flowers | Class 1 | 34.6 | 7.5 | 11.0 | 33.4 | 67.2 | 36.2 | 4.4 | 48.2 | 44.7 |
| 127446 | A | Grasses | G | Green with flowers | Class 1 | 35.8 | 6.0 | 10.3 | 36.4 | 67.9 | 37.0 | 4.3 | 47.8 | 44.7 |
| 127450 | A | Grasses | G | Green with flowers | Class 1 | 50.6 | 7.3 | 8.4 | 33.1 | 67.5 | 37.0 | 5.1 | 44.2 | 43.1 |
| 127438 | A | Grasses | G | Green | Class 1 | 56.8 | 7.9 | 7.2 | 34.6 | 70.6 | 39.8 | 6.3 | 38.8 | 37.8 |
| 127461 | B | Herbaceous Mixed | M | Green with flowers | Class 2 | 26.8 | 7.1 | 10.3 | 29.0 | 47.7 | 33.1 | 10.3 | 59.4 | 55.7 |
| 127467 | B | Herbaceous Mixed | M | Green with flowers | Class 2 | 35.0 | 7.0 | 12.1 | 30.3 | 56.1 | 33.4 | 7.2 | 56.2 | 53.3 |
| 127469 | B | Herbaceous Mixed | M | Green | Class 2 | 36.8 | 7.9 | 11.6 | 29.1 | 54.7 | 32.3 | 7.0 | 56.0 | 53.9 |
| 127468 | B | Herbaceous | M | Green | Class 2 | 31.0 | 8.7 | 14.8 | 29.7 | 56.2 | 33.4 | 7.2 | 57.2 | 53.8 |

| | | | | | | | | | | | | | | | |
|--------|---|----------------------------------|----|-----------------------|----------------|------|------|------|------|------|------|------|------|------|--|
| | | Mixed Herbaceous | | | | | | | | | | | | | |
| 127473 | B | Mixed Herbaceous | M | Green | Class 2 | 35.5 | 9.1 | 13.2 | 26.7 | 50.0 | 30.2 | 7.4 | 60.7 | 57.7 | |
| 127480 | B | Mixed Herbaceous | M | Green with flowers | Class 2 | 26.3 | 9.0 | 9.4 | 32.5 | 45.5 | 34.5 | 9.4 | 60.7 | 57.7 | |
| 127437 | A | Mixed Herbaceous | M | | Class 2 | 22.8 | 7.6 | 16.7 | 15.0 | 33.9 | 20.5 | 6.6 | 77.5 | 76.0 | |
| 127445 | A | Mixed | M | Green | Class 2 | 19.6 | 8.8 | 16.1 | 17.0 | 33.5 | 22.9 | 7.2 | 79.9 | 78.5 | |
| 127454 | A | Sorbus alba | Ab | Stem, Leaves | Class 2 | 33.7 | 6.3 | 12.5 | 22.6 | 42.8 | 30.3 | 12.2 | 66.0 | 61.7 | |
| 127455 | A | Sorbus alba | Ab | Fruit | Class 2 | 33.9 | 7.1 | 13.8 | 21.3 | 41.2 | 28.3 | 10.8 | 68.7 | 64.4 | |
| 127444 | A | Mixed Herbaceous | M | Green with flowers | Class 2 | 20.3 | 8.5 | 10.7 | 20.0 | 39.7 | 24.2 | 6.2 | 72.0 | 71.7 | |
| 127453 | A | Fagus sylvatica | He | Fruit | Class 2 | 41.3 | 5.6 | 15.0 | 21.5 | 48.2 | 29.7 | 13.2 | 56.4 | 51.6 | |
| 127456 | A | Fagus sylvatica | He | Stem, Leaves | Class 2 | 42.8 | 5.6 | 13.1 | 23.9 | 50.7 | 32.0 | 14.2 | 53.3 | 48.5 | |
| 127462 | B | Legumes | L | Green with flowers | Class 3 | 24.1 | 8.3 | 18.4 | 24.0 | 41.2 | 27.8 | 9.2 | 71.6 | 68.0 | |
| 127460 | B | Legumes | L | Green | Class 3 | 40.0 | 8.2 | 23.9 | 22.1 | 44.1 | 27.3 | 8.4 | 71.5 | 67.6 | |
| 127475 | B | Legumes | L | Green | Class 3 | 30.9 | 8.7 | 18.7 | 24.4 | 44.7 | 28.8 | 9.2 | 67.8 | 65.2 | |
| 127474 | B | Legumes | L | Green with flowers | Class 3 | 29.8 | 7.8 | 17.6 | 26.2 | 45.8 | 31.1 | 10.4 | 64.7 | 61.1 | |
| 127449 | A | Legumes | L | Green with flowers | Class 3 | 17.1 | 8.5 | 17.0 | 23.7 | 39.4 | 26.6 | 7.5 | 72.0 | 68.6 | |
| 127447 | A | Legumes | L | Green | Class 3 | 21.8 | 10.3 | 23.3 | 18.4 | 34.1 | 21.6 | 5.9 | 78.1 | 75.1 | |
| 127439 | A | Genista hispanica | Gh | Stem, Flowers | Class 3 | 30.2 | 6.3 | 15.2 | 23.5 | 35.2 | 19.7 | 6.1 | 72.8 | 72.4 | |
| 127443 | A | Genista hispanica | Gh | Flowers | Class 3 | 28.1 | 7.2 | 15.4 | 21.2 | 30.6 | 15.5 | 3.9 | 78.1 | 78.4 | |
| 127477 | B | Herbaceous Mixed Crataegus | M | Green | Class 4 | 28.4 | 9.0 | 13.4 | 26.0 | 42.2 | 31.2 | 11.6 | 65.2 | 63.3 | |
| 127457 | B | monogyna | Au | Stem, Leaves | Class 4 | 40.4 | 5.7 | 11.0 | 16.1 | 40.9 | 27.9 | 18.5 | 58.9 | 56.6 | |
| 127478 | B | Quercus alba | Cb | Leaves | Class 4 | 48.1 | 4.3 | 14.8 | 21.2 | 43.3 | 26.2 | 13.5 | 55.3 | 51.5 | |
| 127458 | B | Quercus alba | Cb | Stem, Leaves | Class 4 | 44.5 | 4.0 | 14.2 | 23.2 | 50.5 | 32.0 | 15.9 | 50.9 | 45.6 | |

| | | | | | | | | | | | | | | |
|--------|---|--------------|----|---------------|---------|------|-----|------|------|------|------|------|------|------|
| 127482 | B | Quercus alba | Cb | Stem, Leaves | Class 4 | 48.0 | 4.0 | 13.0 | 23.5 | 45.5 | 29.0 | 14.8 | 53.0 | 49.4 |
| 127470 | B | Rosa canina | Eg | Stem, Leaves | Class 4 | 39.5 | 7.3 | 10.6 | 15.5 | 31.6 | 19.9 | 11.8 | 66.4 | 62.4 |
| 127459 | B | Rosa canina | Eg | Shoots | Class 4 | 38.3 | 6.3 | 10.5 | 14.3 | 36.5 | 23.8 | 15.1 | 60.6 | 53.4 |
| 127466 | B | Rosa canina | Eg | Stem, Flowers | Class 4 | 32.8 | 6.8 | 12.7 | 15.2 | 37.3 | 24.2 | 13.7 | 65.6 | 58.9 |
| 127481 | B | Rosa canina | Eg | Stem, Flowers | Class 4 | 25.3 | 6.0 | 10.2 | 19.2 | 34.6 | 24.2 | 12.5 | 65.6 | 62.3 |
| 127479 | B | Acer sp | Er | Stem, Leaves | Class 4 | 40.2 | 8.6 | 11.8 | 18.9 | 37.1 | 28.0 | 15.3 | 58.8 | 50.3 |
| 127448 | A | Quercus alba | Cb | Fruit | Class 4 | 32.4 | 5.3 | 17.8 | 14.9 | 39.7 | 23.0 | 10.7 | 65.8 | 61.3 |
| 127452 | A | Quercus alba | Cb | Shoots | Class 4 | 34.5 | 5.6 | 15.4 | 17.8 | 43.6 | 26.3 | 12.0 | 60.4 | 57.0 |
| | | Crataegus | | | | | | | | | | | | |
| 127440 | A | monogyna | Au | Fruit | Class 4 | 41.6 | 7.0 | 12.9 | 13.6 | 36.0 | 23.3 | 14.7 | 69.5 | 66.5 |
| 127451 | A | Rosa canina | Eg | Shoots | Class 4 | 31.3 | 6.4 | 12.3 | 12.3 | 35.3 | 22.5 | 12.5 | 62.8 | 55.1 |

Legend:

| | |
|--------------------|--------------------------------------------------------|
| Sample # | Sample number |
| Site | Experimental site (A, B) |
| Type | Species or botanical group |
| Code | Species coding |
| Part | Plant part |
| Class by NIRS | Class (1, 2, 3, 4) in statistical classification |
| DM | Dry matter (%) |
| MM | Mineral matter (Ash) (%DM) |
| CP | Crude Protein (%DM) |
| Cfib | Crude Fibre (%DM) |
| NDF | Neutral Detergent Fibre (%DM) |
| ADF | Acid Detergent Fibre (%DM) |
| ADL | Acid Detergent Lignin (%DM) |
| IvDMD ¹ | <i>In vitro</i> digestibility of dry matter (%DM) |
| IvOMD ¹ | <i>In vitro</i> Digestibility of Organic Matter (% OM) |

(1) IvDMD and IvOMD are *in vitro* enzymatic measurements of digestibility using pepsine and cellulase (Aufrère et al., 2007). Although primarily adapted to ruminants, this method has been validated for horses (Miraglia and Tisserand, 1985) but only for herbaceous forages. This measurement is therefore provided as analytical characteristic of the potential degradability of samples, but without documented validation in the context of this study.

References for Table S2

- Aufrère J., Baumont R., Delaby L., Peccatte J.-R., Andrieu J., Andrieu J.-P., Dulphy J.-P., 2007. Prévion de la digestibilité des fourrages par la méthode pepsine-cellulase. Le point sur les équations proposées [Prediction of the digestibility of forage with the pepsin-cellulase method. Update on the proposed equations]. *INRA Prod. Anim.*, **20** (2): 129-136, doi: 10.20870/productions-animales.2007.20.2.3445
- Miraglia N., Tisserand J.L., 1985. Prévion de la digestibilité des fourrages destinés aux chevaux par dégradation enzymatique. *Ann. Zootech.*, **34** : 229-236, doi: 10.1051/animres:19850207