Table a. Definitions of the different variables used to describe locomotor behaviour of 15 primiparus dairy Mediterranean buffaloes (modified from Alsaaod *et al.* 2015).
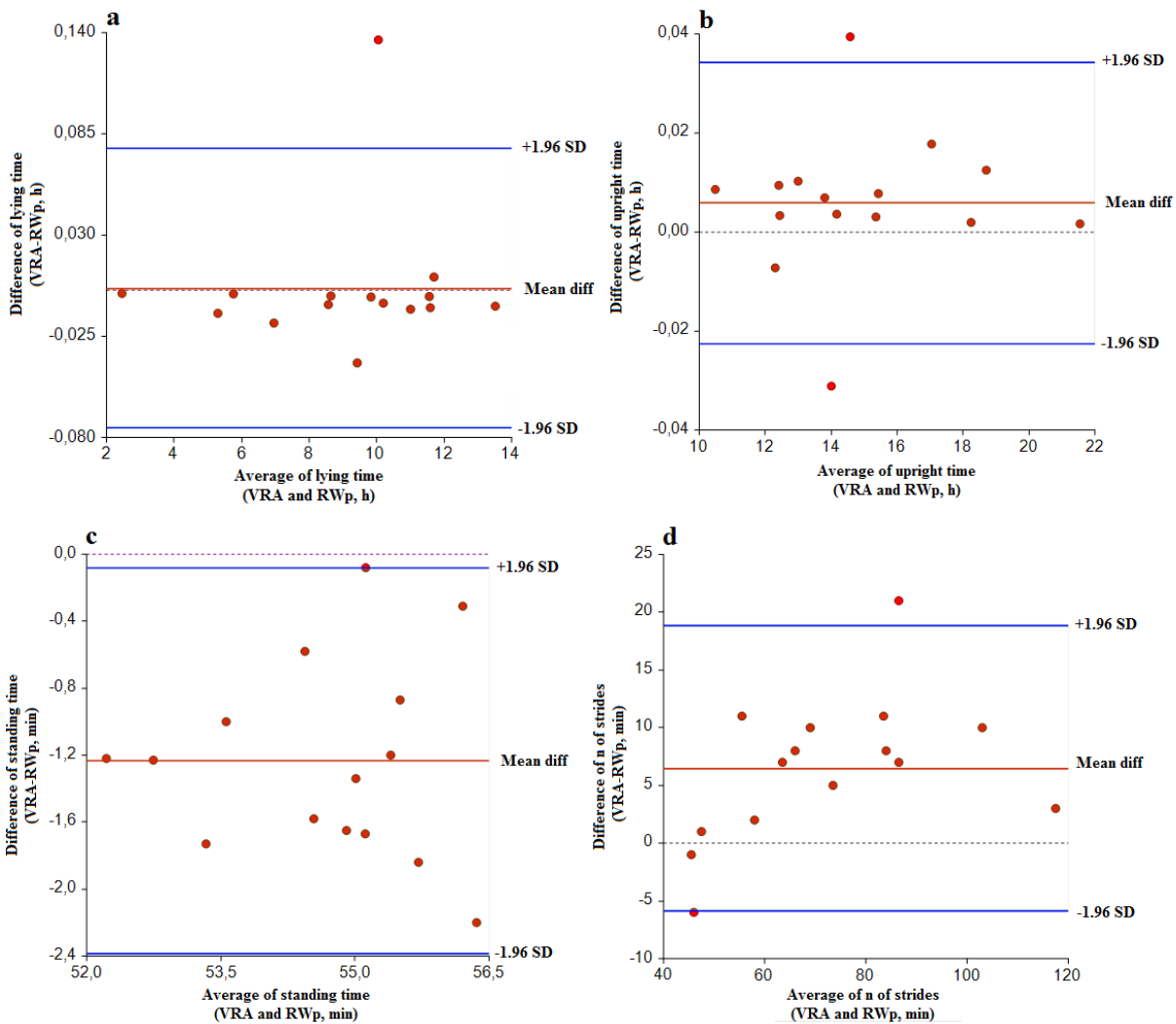
Variables	Definitions
Lying bout	Period with the pedometer in a position exceeding an angle of 58° (as previously established for cows) towards the y-axis, lasting >50 seconds. Interruption of this pedometer position for less than 20 seconds is identified and calculated as one stand up and one lying down event, but not as a separate standing bout. The lying bout is rated as "not interrupted".
Walking bout	Period characterized by at least 3 consecutive strides into the same direction (forward or backward). The period between 2 strides must not exceed 4 s. Walking bouts are rated as separate, if the time between 2 strides exceeds 10 seconds
Standing bout	Periods during which the cow is in up-right position but not walking; temporary change of the pedometer angle exceeding 58° towards the y-axis for less than 50 seconds is neither rated as lying down and standing up events, nor as an additional lying bout.
Stand up	Event at which the pedometer angle changes its position from an > 58° towards the y-axis to an angle < 58° towards the y-axis.
Lie down	Event at which the pedometer angle changes its position from an < 58° towards the y-axis to an angle > 58° towards the y-axis for a duration of at least 20 seconds.
Stride	One forward or backward movement of the limb within a walking bout
Lying time	Sum of the duration of all lying bouts within a given recording period
Walking time	Sum of the duration of all walking bouts within a given recording period. The device records the walking activity in 10-s segments.
Standing time	Sum of the duration of all standing bouts within a given recording period
Up-right time	Sum of the duration of all walking bouts and standing bouts within a given recording period

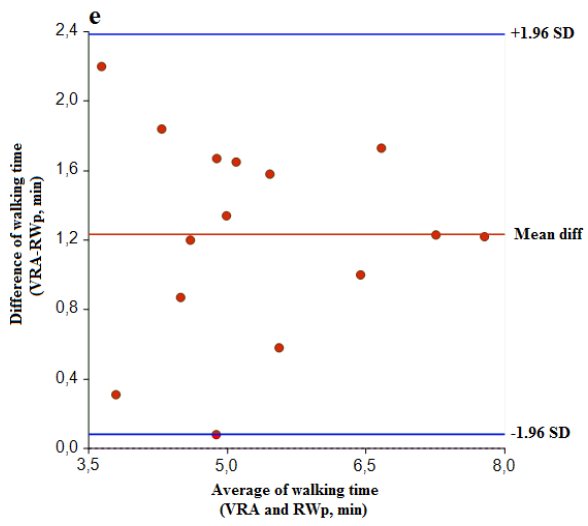s=seconds; °=degree

6   **Figure a**. Bland-Altman plots comparing RumiWatch[®] pedometer outputs (ITIN+HOCH GmbH,

7   Liestal, Switzerland) and video recording analysis (gold standard) in 15 primiparus dairy Mediterranean

8   buffaloes. Graph *a* and *b* show "*lying time*" and "*up-right time*", respectively (both evaluated during 3 intervals

9   of 8-h each one). Graph *c*, *d* and *e*   show "*standing time*", "*number of strides*" and "*walking time*",

10   respectively (all of them evaluated during 3 intervals of 20-min each one). Each point refers to the value

11   derived from one buffaloes.

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15   RWp = RumiWatch® pedometer; VRA = Video Recording Analysis.

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