FarmTrail Hardware Selection & Recommendation Policy

ThingsCommute | Working policy v1.0 | 10 October 2026 | For future product and catalogue decisions

Core principle

A device that works in development is not automatically suitable for real-world farming. FarmTrail must distinguish hardware compatibility from hardware recommendations.

FarmTrail can support a device technically without recommending that farmers buy it. Recommendations must reflect the practical demands of the intended application, including battery maintenance, animal handling, reliability, environmental conditions and total operating cost.

1. Hardware classification

Classification	Meaning and publication rule
Recommended for livestock	Validated in realistic outdoor conditions; practical power and mounting; sufficiently reliable reporting; acceptable maintenance. Eligible for a livestock recommendation list.
Supported / tested	Telemetry integrates with FarmTrail, but operational limitations exist or field evidence is incomplete. May appear in supported-device documentation, not automatically in recommendations.
Experimental / under evaluation	Integration or field reliability not yet established. Clearly marked as experimental; no recommendation claim.
Not recommended for livestock	Known operational drawbacks make it unsuitable for routine cattle use, even if FarmTrail supports the device for other applications.

2. Minimum criteria for livestock recommendations

- Battery service interval: aim for at least 2-3 months between battery changes under a stated, realistic reporting configuration; longer is preferable. This is a provisional FarmTrail target, not a claim that a particular device meets it.
- Field-replaceable power: favour practical battery replacement over frequent recharging; confirm access, replacement cost, enclosure sealing and field-service procedure.
- Animal welfare and handling: avoid devices that require frequent catching, restraining or removing collars/tags for charging.
- Outdoor durability: verify enclosure rating, weather exposure, impact resistance and secure, animal-appropriate attachment.
- Location and reporting: verify GNSS performance, sensible no-fix handling, LoRaWAN coverage, timestamp accuracy and actual uplink reliability.

- Cost of ownership: evaluate purchase price alongside batteries, labour, connectivity, mounting, maintenance and replacement.

3. Evidence before endorsement

Separate manufacturer specifications, lab tests and actual field observations. Never present advertised battery life as independently verified. Document test duration, uplink interval, GNSS conditions, network coverage, weather, mounting, battery state and observed failures. A device moves to “Recommended” only after the relevant use case is demonstrated.

4. Current devices: provisional assessment

Device	Current FarmTrail position
Dragino TrackerD (GPS/BLE)	Supported / tested. Useful for development, GNSS and BLE-assisted asset tracking. Frequent charging makes it unsuitable for the livestock recommendation list.
Dragino TrackerD-LS (solar)	Supported / tested. Solar-assisted design, but observed internal battery endurance is only a few days in current use. Do not recommend for unattended livestock without better field results.
AgroSense tracker	Experimental / unresolved. No uplink observed after several days in the reported test. Diagnose before treating it as a viable option.
SenseCAP T2000	Livestock recommendation candidate, not yet approved. Validate real uplinks, behavioural fields, outdoor GNSS reliability, mounting and actual battery endurance.

5. Different applications, different suitability

A rechargeable tracker may be entirely reasonable on a tractor or powered vehicle when the owner chooses to keep it connected to a USB power source. That does not make it suitable for a cow in a pasture. Likewise, a GNSS-equipped BLE receiver can help estimate nearby beacon locations for asset tracking, but BLE signal fluctuations mean that proximity-based estimates should not be described as exact beacon positions.

6. FarmTrail catalogue and product rules

- Maintain separate fields for integration support, tested status, recommended use cases and known limitations.
- Allow a device to be supported for one purpose and not recommended for another (for example, tractor tracking versus cattle tracking).
- Show relevant maintenance expectations and evidence level alongside each recommendation; avoid universal “best tracker” claims.
- Do not remove existing integrations merely because a newer, more practical device becomes preferable.

7. Review triggers and next actions

- Review after genuine T2000 uplinks and field battery-life observations; validate dashboard behaviour against real data.

- Reassess the Dragino devices only if a different power strategy or operating profile demonstrably resolves the maintenance issue.
- Investigate the AgroSense no-uplink problem before any compatibility or reliability endorsement.
- Revisit the 2-3-month service target as field evidence and livestock use cases develop.

Decision status: Working policy for FarmTrail / ThingsCommute. This document records the principles and provisional device assessments discussed on 10 October 2026; it is not a certification or a completed comparative field trial.