Foraging behavior of Creole fattening pigs kept outdoors under tropical conditions on sweet potato (*Ipomoea batatas (L.) Lam*) field

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1. Why the study was designed: the context
2. How : Material and Method
3. First results: foraging behavior
4. Conclusion

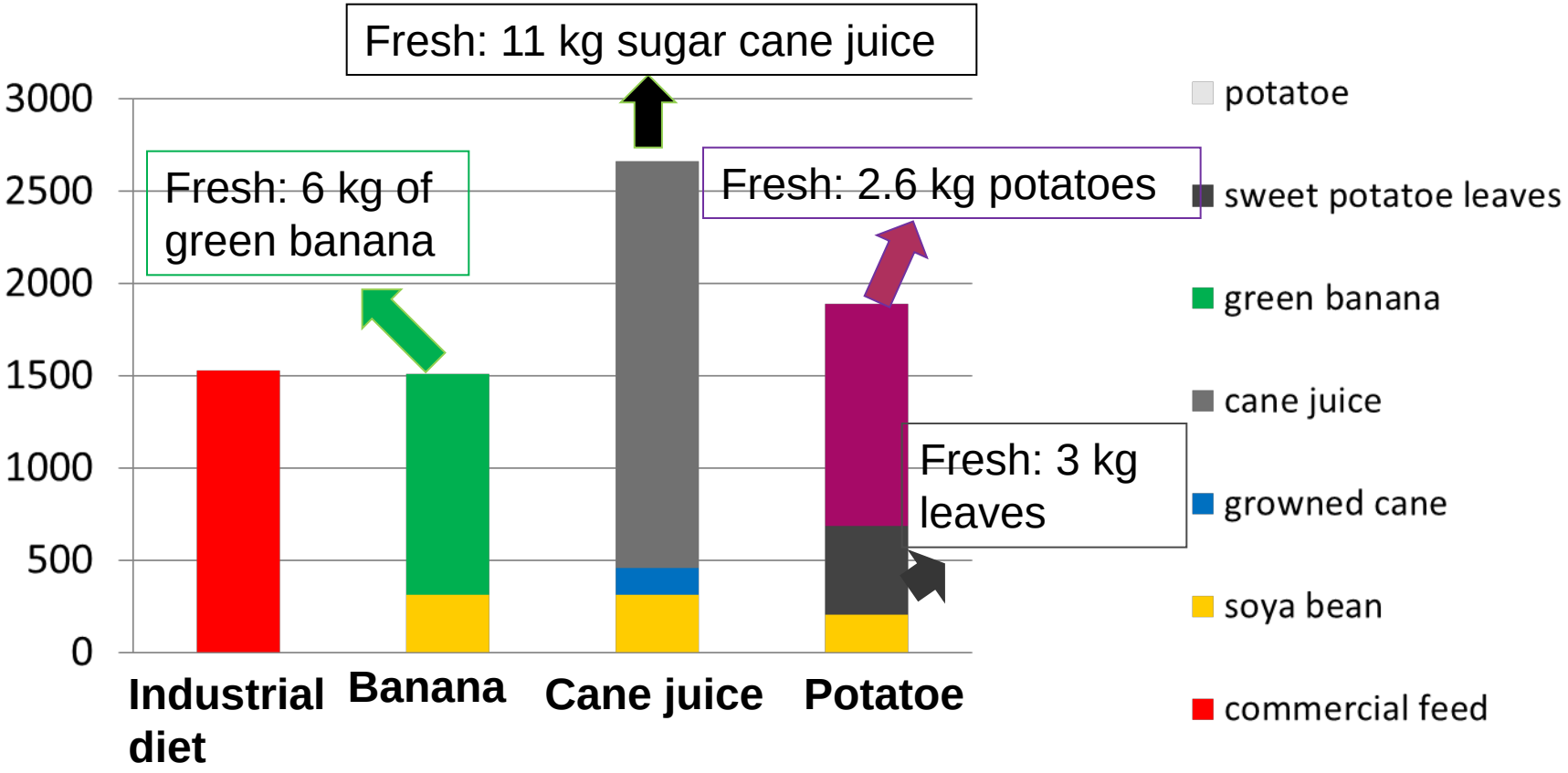
1/1 Why the study was designed: the context

- **Some farmers ask for pig fed with local resources**
- **Results on outdoors pigs reared in tropical conditions are poorly described**
- **Knowledge on tropical resources in INRA-URZ:**
  - **Local pig breed: the Creole pig better adapted to harsh conditions than exotic breeds**
  - **tropical feed resources from the Caribbean :**
    can cover energy requierements
    but not the whole protein requierements of growing pigs

1/2 Why the study was designed: the context

- **Knowledge on tropical feed for pigs in INRA-URZ**

Examples of diet based on tropical resources for energy and protein requierements of Creole pig between 30 and 60 kg with 500 g/d growth rate



Sources: Régnier C. 2011; Xandé X. 2008; Renaudeau et al. 2013

1/3 Why the study was designed: the context

- **Questions:**

  - **As labor for the preparation of the pig diet is a limiting factor, to what extent pigs able to make themselves their own diet from a sweet potatoes field?**

  - **What is pig's behavior in tropical outdoor conditions?**

  - **What is the effect of the climate?**

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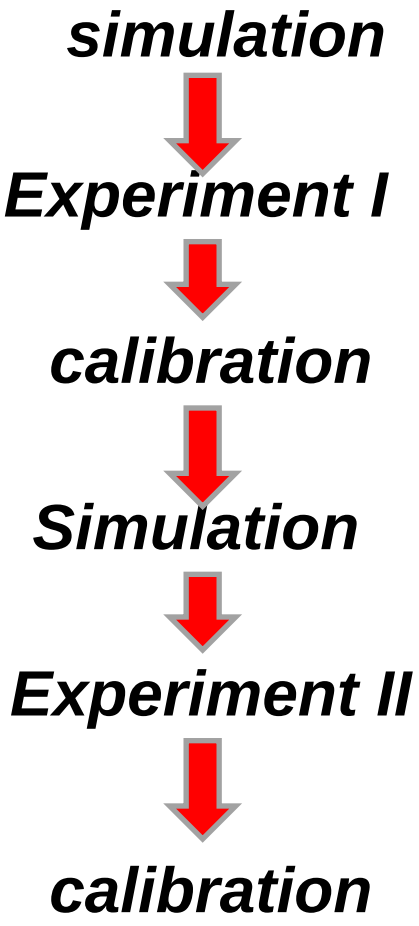
1 Why the study was designed: the context

2 How : Material and Method

2/1 How : Material and Method

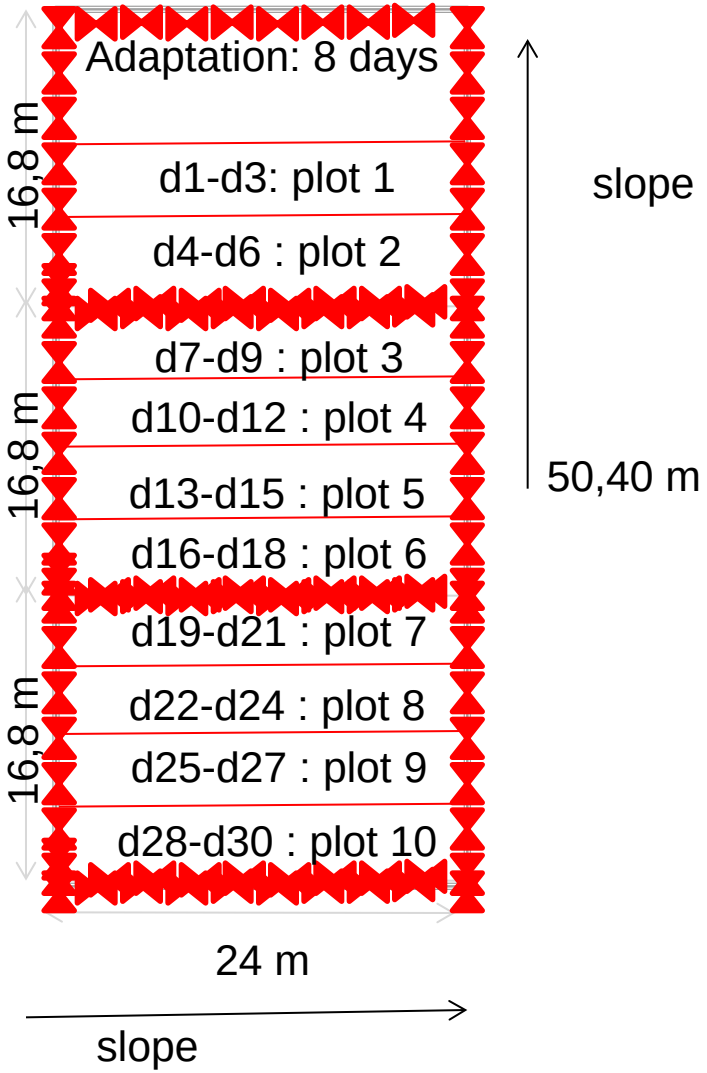
- **First experimental study:** outdoor behaviour of pigs
- **Second experimental study:** growing performance in outdoor conditions with diet based on potatoes leaves and tubers



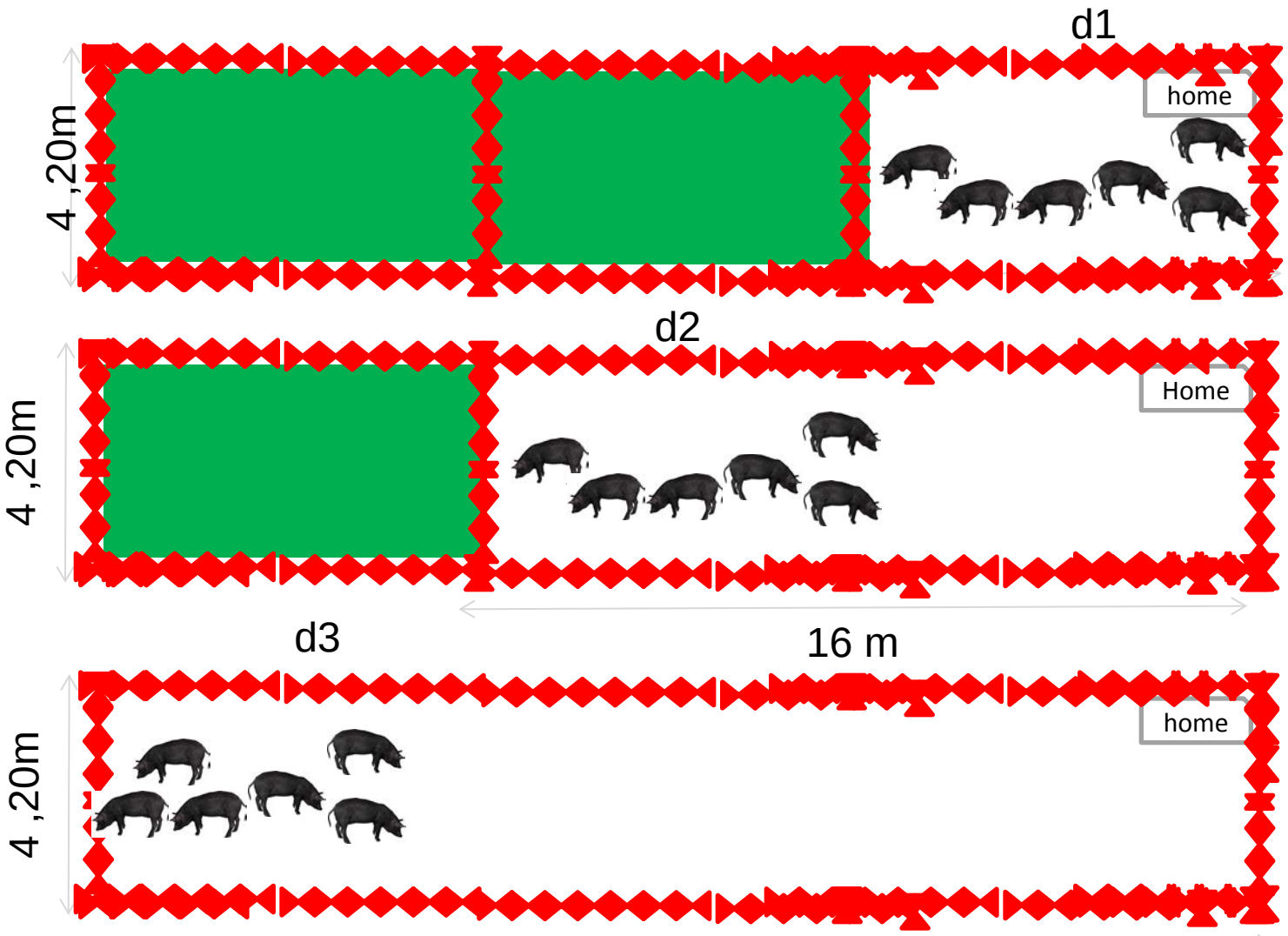
This presentation is focussed on the first study

2/2 How : Material and Method

- 6 Creole pigs (31.0 ± 2.4 kg)
- Sweet potatoes area: 1,613 m², with an average free access of 11.20 m²/animal/day during 34 days + 8 days of adaptation
- Based on estimation of the available biomass from random samples, it can be estimated a yield of : 780 kg of leaves (125 kg DM) and 3 T of tubers (1.35 T DM)



2/3 How : Material and Method



Behavior of the pigs : during 12 hours between 6 a.m. and 6 p.m. at day 8 and day 22 after the adaptation stage.

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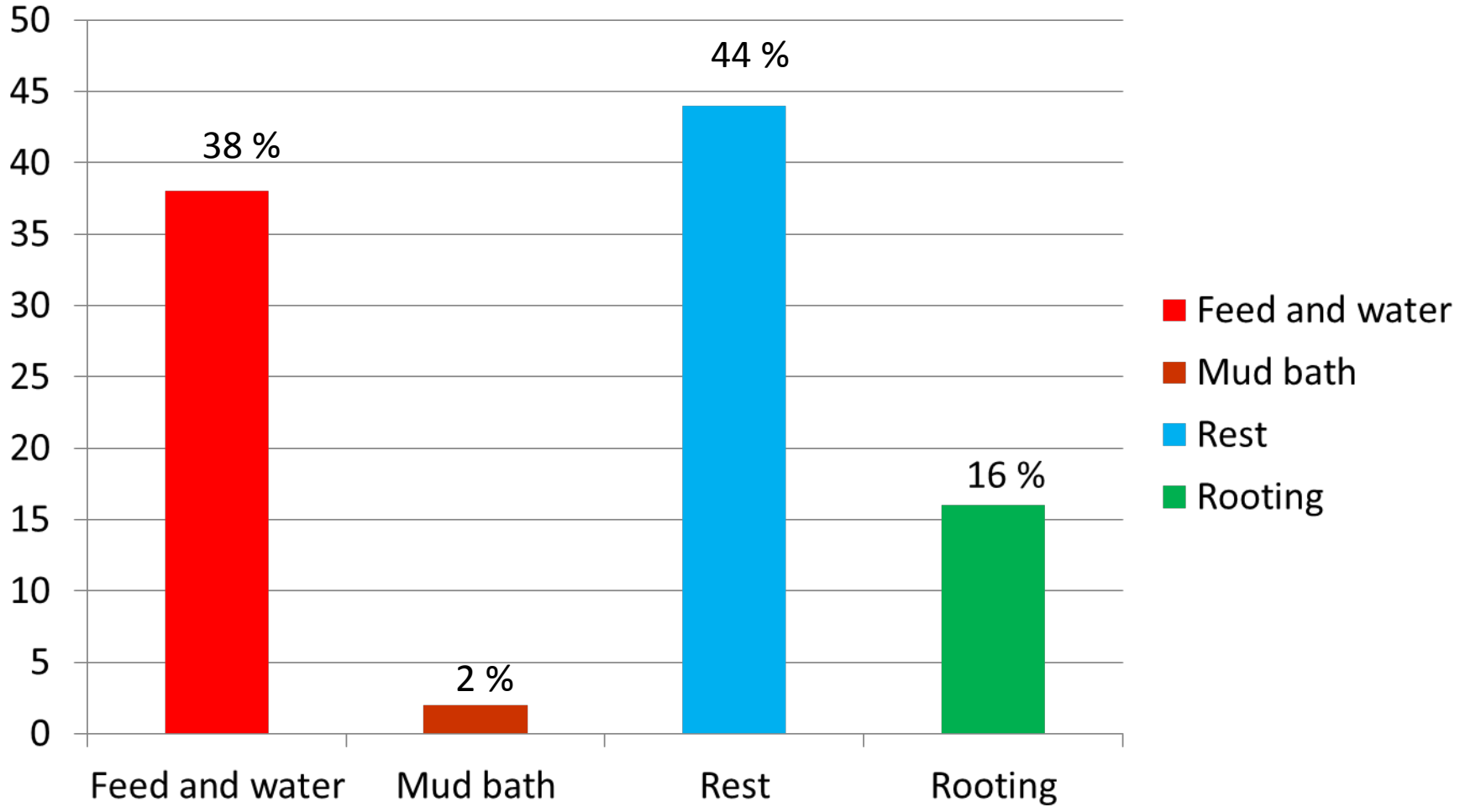
3/1 Results

Before

After

Pigs can provide service such as avoiding the use of herbicides before planting.

3/2 Results: physical activity and feeding behaviour from 06:00 to 18:00



During the 12 continuous hours of observations, the average distance traveled by pig was 380 ± 40 m.

3/3 Results: physical activity and feeding behaviour from 06:00 to 18:00

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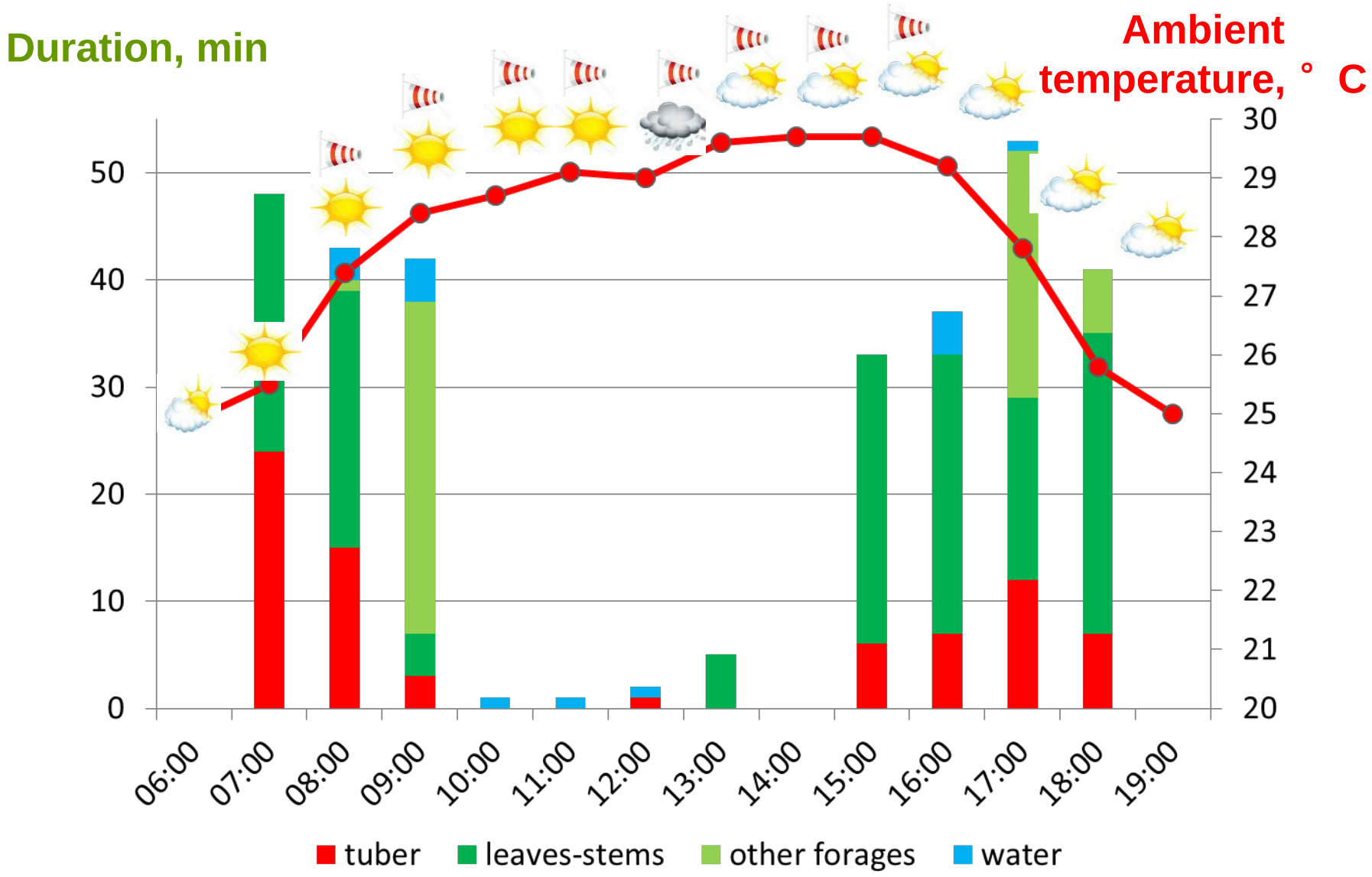

4 Conclusion

- **The study is a preliminary step but we learn that**

  - With adequate protein supplement, it seems possible to produce alternative pork meat from outdoor pigs reared on potatoes field.

  - Pigs can provide ecological services: for instance prevent the use of herbicides, contribute to the fertilisation of the soil, preparing the soil before plantation

- **Further studies are needed: the next step:**

  - An experimental study on growing performance and economic evaluation