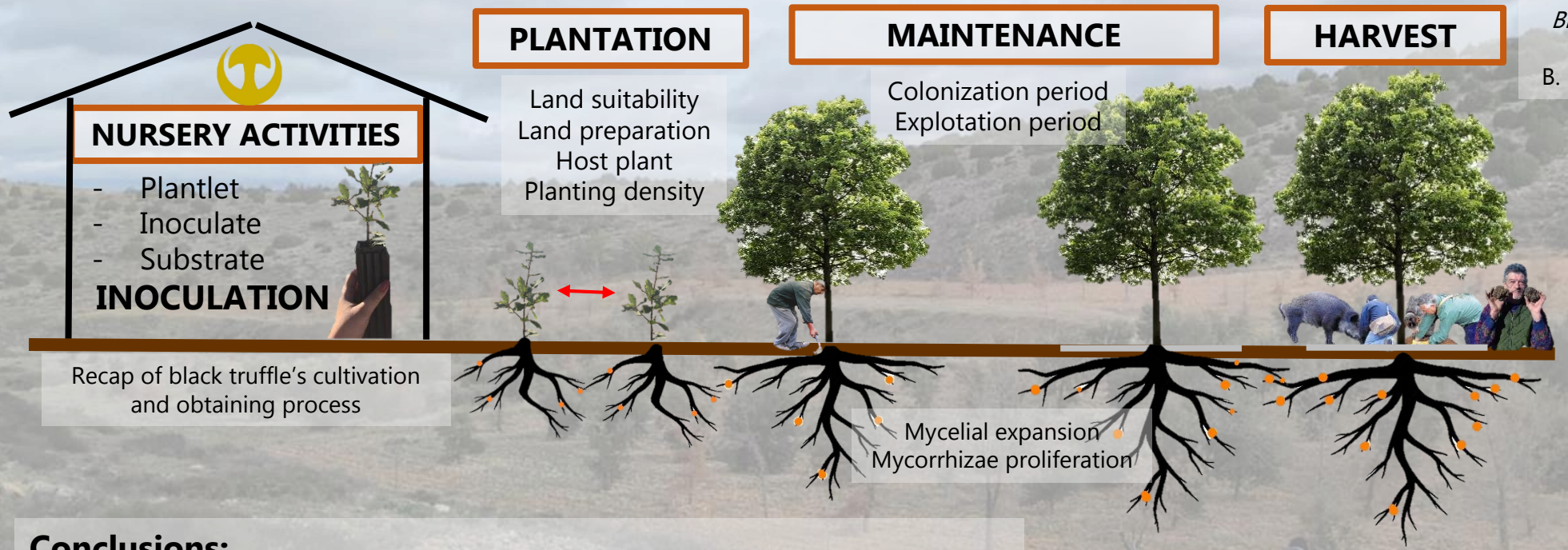
# BLACK TRUFFLE CULTIVATION

Olga García-Pardo Villanueva
2020 June

**Aims:**
- To make **black truffle (*Tuber melanosporum*) cultivation and obtaining methods** known
- To **synthesize information and recommendations** from different sources: books, articles and experts
- To highlight the **scientific and field work** carried out by workers dedicated to the sector



*Black truffle (T. melanosporum),* A. External and internal appearance (E. Luengo), B. Microscopic view of ascospores (M. Casas)




Mycorrhized kermes oak root

## MYCORRHIZA

Symbiosis (Mutual benefit)

The fungus receives the necessary organic nutrients that cannot synthesize by itself (**carbohydrates and amino acids**) and the plant increases the **uptake of water** and some minerals from the soil (**P, N, K)**, in addition to **improve tolerance of stressful situations** such as drought, disease or parasitic infestations (Parniske, 2008).

**Conclusions:**
- The whole black truffle obtaining process is **long and laborious**
- The truffle plantation is **profitable from the tenth year**
- There is a **lack of varied information** about truffle farming
- Nurserymen and truffle farmers **hide and reserve their techniques**

References: Parniske, M. (2008). Arbuscular mycorrhiza: the mother of plant root endosymbioses. Nature Reviews Microbiology, 6(10), 763-775. DOI: 10.1038/nrmicro1987