TECHNICAL SHEET

Onion drying process

Presentation of onion

The onion (Allium, Cepa L) of the lily family is a biannual plant cultivated under irrigation, for its bulbs and its leaves. The vegetative cycle of the culture varies from 120 to 160 days according to the varieties. The plant produces at maturity a bulb of round/thick or flattened form, of color generally purple or white. Its multiplication is generally assured by black and angular seeds. The onion can also be propagated vegetatively by small bulbs (bulblets). The potential yield varies between 30 and 60 t/ha depending on the variety.

The onion develops well on sandy-clay and sandy-loam soils rich in well-decomposed organic matter. It fears excessive acidity, the most favorable pH is between 5.5 and 7.5. The onion does not support the salinity of the soil nor that of the water of watering.

Onion and his different parts

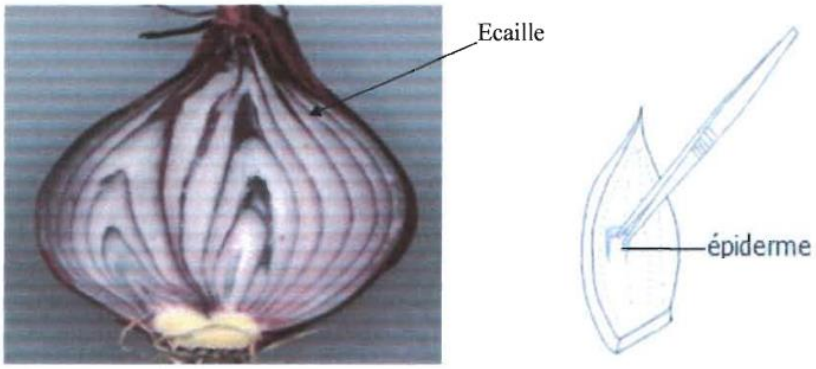

Figure 1 : bulb of the onion (source : GRET, 1995 cited by GO, 2014)

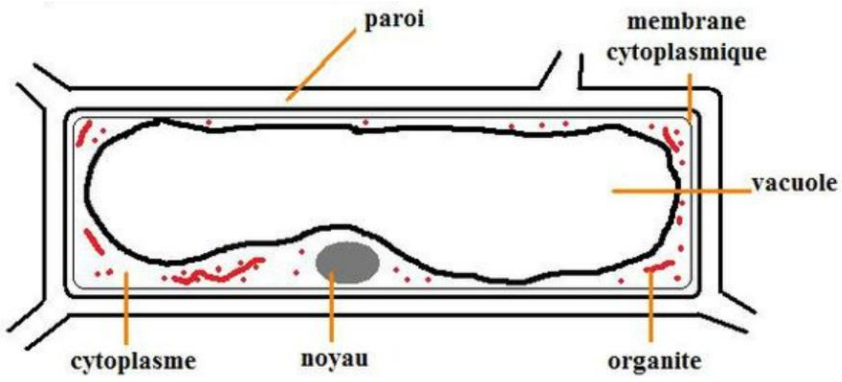

Figure 2 : onion cell

(source : http://espritscientific.canalblog.com/archives/2013/01/05/26071479.html)

Onion pre-treatment before drying (Go, 2014)

Drying of onion with pretreatment follows the same process as without pretreatment. The only difference is that for drying with pretreatment, after cutting, the onion is soaked in a solution of NaCl (10% and 5%) for 10min. Soaking in salt water would extend the shelf life, better preserve the color of the onion which tends to turn brown during drying and reduce the drying time (Ndiedieng, Nguelor, 1992).

Drying of the onion

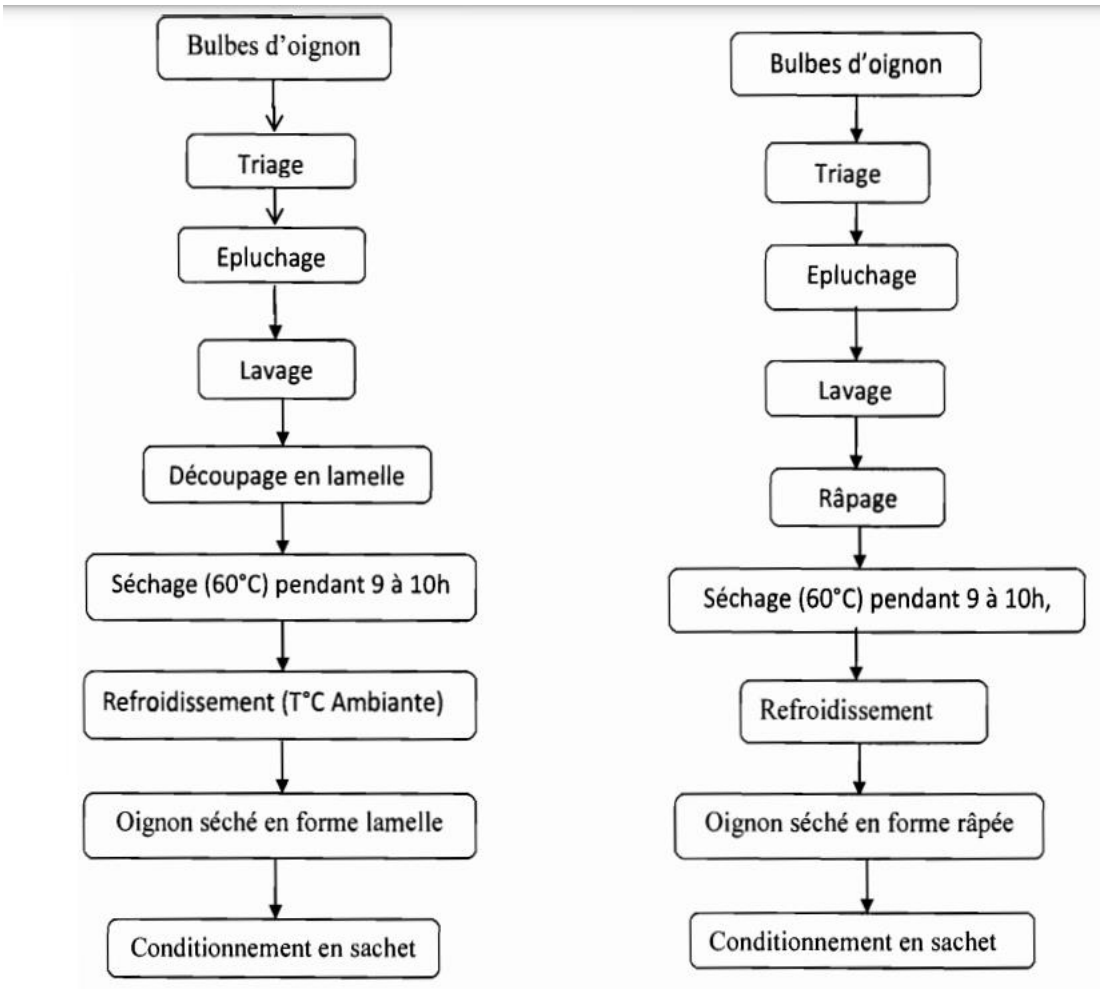

Figure 3 : onion drying process with pre-treatment (source : GO, 2014)

Characteristics of the technology

- Process for drying sliced or grated bulb onions, pre-treated with salt, using the ATTESTA gas dryer.
- Pre-treatment with salt reduces browning and improves the shelf life of the dried onion.

Bibliographic references

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Other references

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