

# CORRECT TREATMENT OF SEED POTATOES



**At the beginning of a new growing season, everything has to be focused on the correct treatment of seed potatoes. After all, this valuable parent material forms the basis for a successful harvest of good consumer grade crops.**

## On-call supply

Arrange for the seed potatoes to be supplied according to the expected planting date. Prevent unnecessary early supply, unless the company has adequate storage facilities.

## Cultivation and storage

Consult the supplier of seed potatoes about the conditions in which the propagating material has to be stored. In particular, inquire about the conditions in which the tubers were stored between the moment of bagging, certification and delivery. How long ago were the seed potatoes taken out of the cold room? How long have they been in the bags? At what temperature have they been stored since then?

## Labels

Certified propagating material should always be accompanied by a phytosanitary label when supplied: 1 label per bag, big-bag or truck load. In the last two cases, the contents must always be sealed.

## Inspection

Always inspect the quality of supplies upon arrival at the farm. Take samples, wash the tubers and inspect them for diseases (black scurf, silver scurf, dry rot, wet rot, ...), flaws (cut tubers, grubbing damage, pressure marks, ...) and grading.

## Standards

Certified propagating material must comply with current quality standards as set out in the relevant inspection regulations of the country of origin. The trade in propagating material is regulated in the RUCIP regulations. If flaws are found, the supplier of the propagating material has to be informed as soon as possible.

## Rain/frost

Do not expose or store propagating material to rain! Even a thin film of water enables bacteria to move towards the lenticels and infect the tuber. If frost is expected to occur: store the propagating material inside or make sure that it is adequately protected!

## CIPC / sprout inhibitors

Never store seed potatoes in the vicinity of consumption potatoes! Miniaturisation caused by treated tablepotatoes can affect its germination capacity. If possible, store propagating material in a warehouse in which CIPC has never been applied.

## Temperature

If propagating material is not planted immediately, it should ideally be stored at temperatures ranging between 7°C and 10°C. Higher temperatures lead to premature germination.

## Light

Propagating material can - pending the planting process - be stored in light.

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## Aeration

Make sure that the seed potatoes are well ventilated. This prevents temperature fluctuations and condensation (humidity). Stock in crates if possible or in bulk, in a proper warehouse and in quantities that enable aeration. Bagged material is best left open to enable adequate air circulation. Propagating material in tippers and big-bags is very difficult to aerate. When outside temperature increases, the (cold) batch becomes moist, which in turn leads to germination and fungal or/and bacterial diseases.

## Germination

Keep seed potatoes from germinating for as long as possible. Redepositing and early germination accelerates the aging process and can lead to the spreading of diseases.

## White dots

When planted, propagation material should be "awake", meaning that minute sprouts (white dots) have to be visible. If this is not the case, the risk of a prolonged period of time between planting and emergence increases, especially in unfavourable growing conditions. This enables diseases (e.g. Fusarium, Rhizoctonia, ...) to affect both tuber and sprouts, which in turn leads to a thin and irregular state of growth.

## Dormancy

After a period of cold storage, varieties with a prolonged dormancy period (Agria, Challenger, ...) have often not yet reached their maximum growing capacity when planted. This is characterised by slow emergence and a lengthy initial development. Such varieties must be taken out of cooling long enough prior to planting. Inquire as to the appropriate moment!

## Interim period

Allow cooled seed potatoes to gradually assume the correct temperature. If possible, maintain a period of two weeks between leaving the mechanised cooling facility and planting. This period can be as much as three to four weeks for slowly germinating varieties.

## Soil

Avoid planting in cold, wet soil. The minimum soil temperature recommended for planting is 10°C. Always observe the recommended planting distance and depth. Plants that are planted too deep are at risk of rotting away in wet springs.

## Registration

Make a note of which propagating material has been planted on each plot (variety, tuber size, batch number, ...) and save all phytosanitary labels from each bag or dispatch for a period of at least five years.

## Sample

Keep a sample of the seed potatoes separately. This enables the evolution of germination and quality to be monitored in the weeks following the planting of propagating material.

## More info

Based on research and information on potato cultivation issued by PCA and Inagro.