Field trial of SILVIVO® – SM030 Gottorp, Östergötland, Tamarack (American larch)

18 April – 4 October 2026 (169 days)

Introduction

At this site, bare-root Larch (*Larix laricina*) seedlings planted with SILVIVO® were compared with untreated control seedlings. The aim was to examine differences in survival and growth during the first establishment period.

The trial area is on former agricultural land, about 90 percent of which is peat soil. The bare-root seedlings were planted without site preparation, and the grass around them was trampled down on two occasions. The low-lying area can become very wet, but this year's limited precipitation meant that this did not cause any problems.

Pictures from the site

Area identification 2026-10-04



Planting 2026-04-18





Follow-up 2026-09-21 and 2026-10-04







Pictures of a representative selection of untreated (left) and treated (right) seedlings at the follow-up on 2026-10-04.

Results in brief

Key results

Measure	Control	SILVIVO®	Observed difference
Survival	100%	100%	0%
Mean seedling height	744 mm	778 mm	5%*
Mean stem diameter	9.1 mm	9.5 mm	4%*

*No significant difference between treated and control.

Short conclusion

After 5.5 months, the SILVIVO® group had unchanged survival and somewhat stronger development than the control group. However, the difference was not statistically significant.

Important to know

The results describe the outcome at this site and during the period in question. They should be interpreted together with soil conditions, weather, damage and the scale of the trial. A single field trial is not sufficient to draw general conclusions about all planting situations.

The trial in brief

Location	Ljungsbro, Östergötland
Planting date	2026-04-18
Follow-up date	2026-10-04
Tree species and seedling type	Tamarack *Larix laricina*, three-year-old bare-root seedling, untreated
Scope	450 tamaracks, with every other row treated
Plug volume/type	Bare-root
Soil conditions	Former arable land, peat soil
Site preparation	No
Dosage	1.6 grams per seedling
Application	Hand-dosed at bare-root planting
Trial focus	Survival and growth

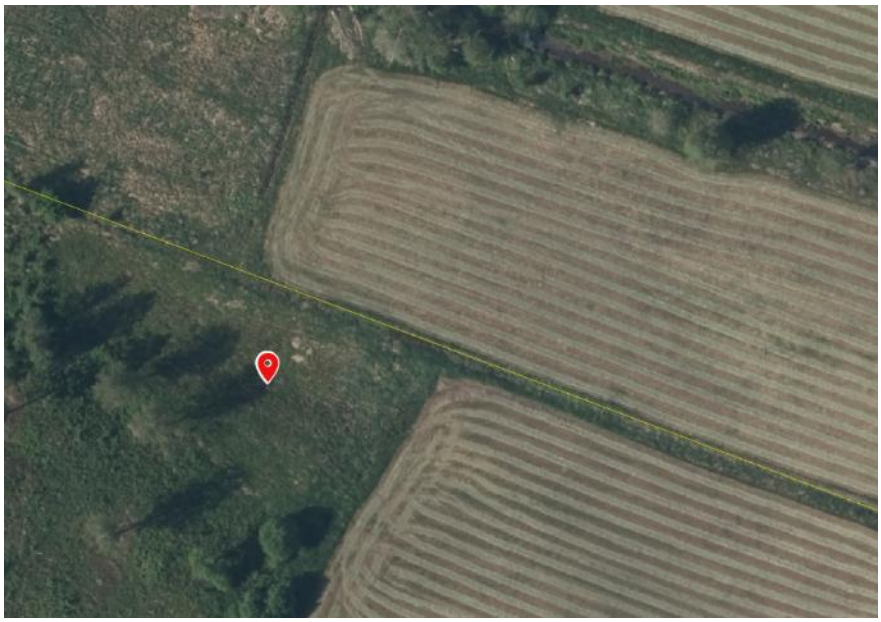
The question the trial aims to answer

Do SILVIVO®-treated seedlings show better survival and early development than the control seedlings under the conditions at the trial site?

Site conditions

Soil and planting

- Soil type and soil moisture: Moisture content was good at planting.
- Seedling quality at delivery: Good.
- Seedling quality at planting: Good.
- Site productivity or site index: G32.
- Elevation and climate zone: 80 metres above sea level, climate zone 3.
- Site preparation method and timing: No site preparation.
- Planting spot: Directly in arable land
- Tree species and seedling type: Tamarack *Larix laricina* (American larch), three-year-old bare-root seedling from the USA
- Seedling protection: Untreated.
- Known risks: Game, mainly fallow deer.



Map of the planting area. In total, 450 tamaracks were planted. Every other row was treated with SILVIVO® and marked with blue sticks.

Weather during the trial period

Weather for the period 18 April – 4 October 2026, based on the Kvarn station (same station for temperature and precipitation).

The mean daily temperature was 14.3°C over the period, ranging from 5.2°C on 28 April to 23.7°C on 30 July. The warmest day was 16 July with a daily maximum of 32.0°C, while the coldest night occurred on 21 April with a daily minimum of -5.8°C. In total there were 21 summer days (daily maximum ≥25°C), of which 4 were really hot days (≥30°C), and 16 frost nights, mainly in April and early May. Temperature data are available for 167 of 170 days.

Total precipitation was 259.1 mm over all 170 days. 40 days had at least 1 mm of precipitation, while 97 days were virtually dry (below 0.1 mm). The wettest day was 14 June with 29.4 mm, and the longest continuous dry spell lasted 8 days, from 9 to 16 July.

How the trial was carried out

Control and SILVIVO® groups were created

→ SILVIVO® was placed under the roots at planting

→ The seedlings were marked and documented

→ The same measurements were followed up in both groups

Common trial method

The trial was carried out according to the SILVIVO® model, a standardised working method for planning, documenting and following up field trials. The common structure makes it possible to compare control and SILVIVO® seedlings and to relate the results to the site conditions. Read more about the SILVIVO® model at www.silvivo.se

Results in detail

Survival

All treated and untreated seedlings in the representative sample survived.

Seedling height and stem diameter

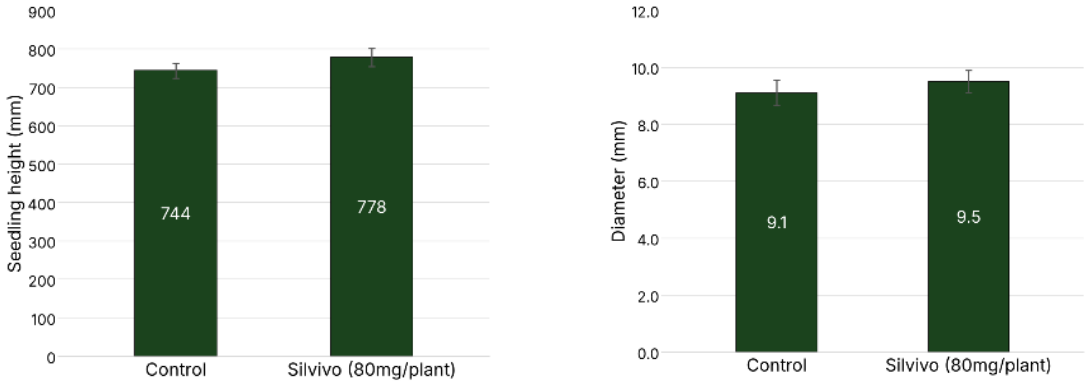


Chart of seedling height and diameter. Bars show means and error bars show the standard error of the mean (s/√n).

Damage and external impact

- Pine weevil damage: 0
- Browsing damage: A few; the entire area was treated with Trico game repellent on 2026-08-15.
- Drought: 0
- Waterlogging: 0
- Frost: 0
- Frost damage: 0
- Vegetation competition: Grass trampled twice during the growing season
- Mechanical damage: A few fraying injuries

What happens next?

- Next follow-up: Summer 2027
- Planned long-term follow-up: Every summer from now on
- Comparison with other trial sites: no

About the trial

- Responsible for trial design: The landowner
- Responsible for measurements: The landowner
- Report date: 2026-10-27