



ONLINE COURSE

# Growing without daylight

How to grow crops and plants with no daylight





# Growing without daylight

Growing without daylight is a new development, that takes horticulture to another level. With Light Emitting Diodes (LED) it is possible to offer plants the perfect light conditions, while other climatic factors are also completely controlled. Since there are no further external factors influencing the climate, all decisions in climate control have to be made by the grower. Effective climate control demands in depth knowledge of plant physiology. HAS University has more than 5 years experience in successfully growing crops in climate chambers exclusively lit by LED.

## Content

We now offer an E-learning course to share this knowledge and experience with professionals from horticulture and related industries with special interest in vertical or city farming. Professionals working in the horticulture industry at bachelor's level (or higher) and those with a bachelor's degree in biology and related sciences will be accepted.

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*This course provides a comprehensive view of how to become successful in growing without daylight.*

**Richard van de Waart**

Sales manager Horticulture at Luminaid bv

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The E-learning course consists of 10 modules. Each module consists of short lectures, a platform to chat with fellow course members, knowledge tests and assignments. You must first pass the test at the end of each module, before you can continue with the next module.

The course content is primarily related to practical applications, and more complex theoretical content is only added when absolutely necessary. Several commercially grown crops will be discussed during the course. At the end of the course you will have evidence-based ideas about potential crops for use in vertical farming, the costs involved and the yield potential of these crops in their specific farming systems.

## Modules

1. Introduction
2. Water and nutrients
3. Soil and substrate
4. Seeds, cuttings and getting started
5. Photosynthesis
6. Respiration
7. Transpiration
8. Temperature, humidity and CO2 control
9. Light
10. Crops, varieties and yield potential

## For who?

This course is for people who are involved in plant production all over the world and want to learn more about growing without daylight, e.g. people active in the horticultural sector, crop managers / specialists, propagators and teachers (bachelor level).

## Duration

30 hours, 2 months to complete. This is an online course. This course is offered continuously.

After receiving the payment, a login will follow which will give you access to the course.

## Optional

After finishing the online course Growing Without Daylight, we offer you the option to take extra private online lessons. We will answer your questions and accompany you during individual cases. This option costs €199. Please contact us for more information.



## Summary

### Start date

This is an online course and offered continuously.

### Duration

2 months

10 days

### Certification

After successful completion of all modules, you will receive a certificate for the e-learning course Growing without Daylight from HAS University of Applied Sciences.

### Requirements

The course is at Bachelor level





[www.has.nl/en](http://www.has.nl/en)

# Simply register online

Are you enthusiastic about this training after reading all the information?

Register now on our website [www.has.nl/en](http://www.has.nl/en). After registration you will receive a confirmation immediately. If you have any questions? Don't hesitate and contact us!



## Project manager

**L. (Lamiaâ) Fareh El Btioui**

[L.fareh@has.nl](mailto:L.fareh@has.nl)

+31 (0) 88 890 37 74

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## HAS University of applied sciences

PO box 90108

5200 MA 's-Hertogenbosch

T +31 (0)88 - 890 36 00

[has@has.nl](mailto:has@has.nl)

[www.has.nl/en](http://www.has.nl/en)

## HAS University, location Den Bosch

Onderwijsboulevard 221

5223 DE 's-Hertogenbosch

## HAS University, location Venlo

Spoorstraat 62

5911 KJ Venlo