



Wageningen School
of Social Sciences

RISK ANALYSIS AND RISK MANAGEMENT IN AGRICULTURE: UPDATES ON MODELLING AND APPLICATIONS

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21-25 August 2017

**Course organised by the Wageningen School of Social Sciences (WASS),
Wageningen University**

Introduction & objectives of the course

Introduction

The farm sector is affected by a large and changing set of risk sources including more volatile producer prices, unusual weather patterns, upstream and downstream market power along the value chain, increasing dependence on financial institutions, and political risks. This induces the need for (new) risk management tools. Also the Common Agricultural Policy 2020 is considering risk management as an important component of agricultural policy.

Objectives

Participants will learn theories concerning risk analysis and risk coping strategies and will develop proficiency with software to facilitate the initiation of their own research in topics related to risk in agriculture. The course deals with both conceptual and methodological issues.

Target group and learning outcomes

The course is oriented toward PhD candidates, postdoctoral researchers and others with background in agricultural and applied economics.

After successful completion of this course students are expected to be able to:

- Understand theories underlying risk and risk management decision making.
- Model risk including copulas.
- Critically assess econometric analyses with regard to adoption of risk management tools.
- Model whole-farm risk management decisions.
- Reflect on current (EU) policy developments with regard to risk management.

Assumed prior knowledge

Microeconomic theory at the graduate level such as covered by H.R. Varian in "Microeconomic Analysis" is assumed to be familiar. Econometric theory and applications at the graduate level are required and some exposure to panel data econometrics is desirable.

Course fees

The course fee is € 500. For PhD candidates of WASS or WIMEK/SENSE with an approved TSP the course fee is reduced to € 250. The course fee includes additional training material, coffee/tea, lunches, a social dinner and informal reception.

Session Times

The course consists of theory and method sessions, divided in morning sessions for the presentation of theoretical aspects, and afternoon practical sessions to provide exposure to analytical exercises, simulations, and econometric estimations. In particular, the practical will include applications of the theory, computer analyses with actual data sets, and interpretations in practice. We will also have two evening sessions for discussions in small groups and plenary feedback.

Outline of the course in hours

The course will involve daily sessions, with a 3-hour theory session in the morning, a 3-hour practical session in the afternoon, and two evening sessions.

Course materials

Reading materials prepared by the authors will be sent to participants in advance of course. Articles and other accompanying materials will be distributed during the course

Requirements and ECTS

Participants will have to make a take home exam, which in turn makes them eligible to obtain the amount of 3 credits (according to ECTS).

Course Schedule

Day	Lecture (morning)	Practical (afternoon)	Debate (evening)
1 (21 August)	<p>Introduction (MM)</p> <ol style="list-style-type: none"> 1. Risk in agriculture and needs to cope with risks <p>Uncertainty and risks (FS)</p> <ol style="list-style-type: none"> 2. Utility theory 3. Risk aversion 4. Agricultural production decisions under risk 5. Moral hazard and adverse Selection 	<ol style="list-style-type: none"> 1. Exercises on Expected Utility Theory (e.g. lotteries, paradoxes, etc.) (FS) 2. Exercises on measuring risk attitude (e.g. elicitation via experiments) (FS) 3. Experiments on moral hazard and adverse selection (FS) 	<i>Social dinner</i>
2 (22 August)	<p>Production risk (YdM)</p> <ol style="list-style-type: none"> 1. Yield distributions <p>Price risks (FS)</p> <ol style="list-style-type: none"> 2. Price dynamics 3. Price volatility <p>Transmission of risks along supply chains (MM)</p> <ol style="list-style-type: none"> 4. Supply risk (disruptions, food safety) 	<ol style="list-style-type: none"> 1. Estimation of yield distributions (YdM) 2. Econometric models of analysis of price dynamics (FS) 3. Econometric models of analysis of price volatility (FS) 	<i>Informal drinks</i>
3 (23 August)	<p>Dependence of risks (BG)</p> <ol style="list-style-type: none"> 1. Quantifying multivariate sources of risk 2. Approaches to estimating univariate risks 3. The nature of dependence 	<ol style="list-style-type: none"> 1. Practical issues in modelling dependence (BG) 2. Tools for modelling dependence (R, SAS) (BG) 	Risk modelling: challenges and solutions (discussion in small groups and plenary) ((MM, BG, FS)
4 (24 August)	<p>Risk coping strategies (FS)</p> <ol style="list-style-type: none"> 1. On-farm coping strategies 2. Off-farm strategies (insurance, financial products, credit) 	<ol style="list-style-type: none"> 1. Adoption of risk coping strategies (econometric models) (YdM) 2. Determinants and adoption of crop insurance (econometric models) (FS) 	Risk management tools of the EU Rural Development Policy: subsidized agricultural insurance, mutual funds and IST (MM, FS, SS)

5 (25 August)	Whole farm analysis (SS) <ol style="list-style-type: none"> 1. Income risk: variability and down-side risk 2. Variance decomposition by income sources 3. Farm risk-programming models 	<ol style="list-style-type: none"> 1. Measurement of income risk (SS) 2. Variance decomposition by income sources (SS) 3. Variance/Covariance matrix of gross margins of farm enterprises (SS) <p>Closing speech: State of the art & outlook (MM)</p> <p>Where is the literature going (MM)</p>	(no program)
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BG: Barry Goodwin, YdM: Yann de Mey, MM: Miranda Meuwissen, FS: Fabio Santeramo, SS: Simone Severini.

Location

The sessions will be held in building “De Leeuwenborch”, Hollandseweg 1 in Wageningen, The Netherlands. The exact rooms will be announced later.

Morning sessions:

9.00-12.00 Lecture room {to be determined}

Afternoon sessions:

13.30-16.30 Computer room {to be determined}

Evening sessions:

19.00-21.00 Lecture room {to be determined}

Registration

Registration is possible electronically via the WASS courses page:

<http://www.wageningenur.nl/en/Education-Programmes/PhD-Programme/Graduate-Schools/Wageningen-School-of-Social-Sciences/Courses/Registration.htm>

The maximum number of participants is set at 20, the minimum at 10.

Please make sure that you provide the most recent contact details so that in case of any changes you will be notified promptly. After your internet registration you will receive a short notification that your name has been registered. At least two weeks before the course you will receive a confirmation about the location and the schedule. WASS will also send an invoice to the address indicated in the registration form.

Please e-mail to Marcella.Haan@wur.nl in case you have not received the second confirmation two weeks before the course.

Cancellations

Cancellations may be made free of charge until 1 month before the start of the course. Cancellation fee of 100 % applies if participants cancel the course less than 1 month prior to the course. The organisers have a right to cancel the course not later than 1 month before the course starts. The participants will be notified of any changes at their e-mail addresses.

Further information

On course content please contact the course organiser, Miranda Meuwissen (BEC). She can be reached through miranda.meuwissen@wur.nl (+31 317 483857).

On WASS: www.wageningenur.nl/wass

For details about the logistics, accommodation, registration, fees, study materials, etc. please contact Marcella Haan

Tel +31 317 484126

Marcella.haan@wur.nl

Contact addresses:

Wageningen School of Social Sciences
Wageningen University
Hollandseweg 1
6706 KN WAGENINGEN
The Netherlands

Useful information on accommodation for participants from outside Wageningen

Hotels:

Hof van Wageningen: 62.50 euro for 1 persons room, 70 euros for 2 persons room, both prices are including breakfast;

www.hofvanwageningen.nl

Hotel de Wageningseberg: 85 euro for 2 persons room, also including breakfast;

<http://hoteldewageningseberg.nl/en/>

Hotel Nol in 't Bosch: 79 euro for 1 person room, 85 euro for 2 persons room, also including breakfast; <http://www.nolintbosch.nl/>

Bed&Breakfast:

See: <https://www.bedandbreakfast.nl/bed-and-breakfast/wageningen/netherlands/c2745088>

B& B De Heksenspeeltuin: 30 euro for a 1 person room

Address: Einthovenstraat 15, 6706JA

Wageningen

Phone: +31 317-418161

E-mail: callyd@zonnet.nl

Website: www.heksenspeeltuin.nl

Villaria Bed en Breakfast: 39-58 euro for a 1 person room

Address: Nassauweg 21, 6703CG Wageningen

Phone: +31 317-419636

Emai: info@villaria.nl

Website: <http://villaria.nl/>

Possibilities to rent a bike

Ons Bakhuus Bed & Breakfast: 45 euro for a 1 person room

Address: Dolderstraat 64, 6706 JG Wageningen

Phone.:+31 317-411994

E-mail: info@onsbakhuus.nl

Website: www.onsbakhuus.nl

De Herbergh Bed & Breakfast: 60 euro for a 1 person room

Address: Generaal Foulkesweg 8, 6703 BR Wageningen

Phone: +31 317-410747

E-mail: glindenbergh@wanadoo.nl

Website: <https://www.bedandbreakfast.nl/bed-and-breakfast/wageningen/de-herbergh/3269/>

Toproom B&B: 55 euro for a 1 person room
Vossenlaan 17

6705 CD Wageningen-Hoog

Phone: +31 317-450214

E-mail: info@toproom.nl

Website: www.toproom.nl

Possibilities to rent a bike

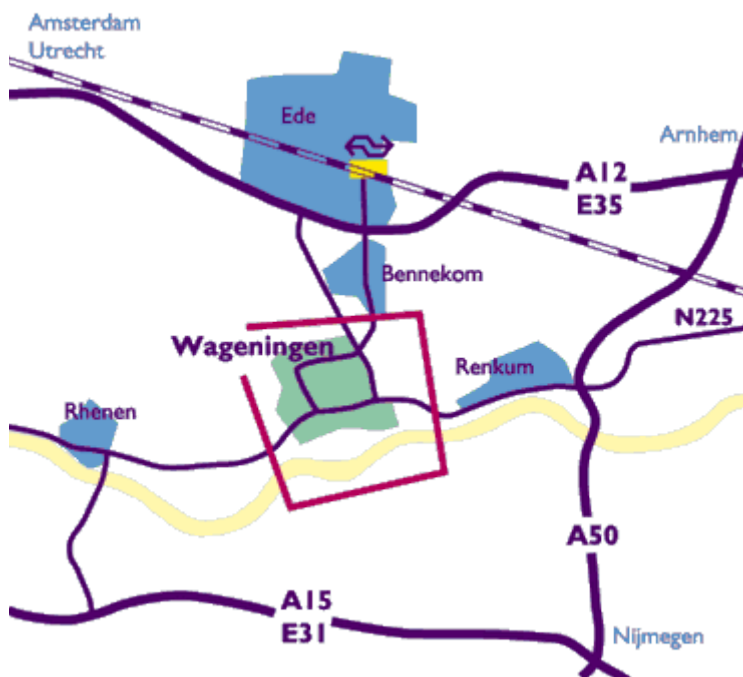
From Schiphol Amsterdam Airport to Wageningen

At the Airport you can buy a train ticket in the 'arrivals' area by the baggage claims. You will see the sign "Train tickets" near the exit. Then follow the signs 'Nederlandse Spoorwegen' (NS) or 'Trains and busses' to the railway station.

Purchase a one-way ticket to the Ede-Wageningen train station, this will cost € 14,10 (plus a service charge if you buy the ticket at the ticket counter). It is also possible to buy the ticket from the ticket vending machines in the station.

There are direct connections from Schiphol Amsterdam Airport to Ede-Wageningen every 30 minutes. Additionally, twice an hour there is a connecting service from Schiphol to Ede-Wageningen where you have to change trains in Utrecht. The destination boards on the platform will indicate the different stations where the train will stop. Check for the names Ede-Wageningen or Utrecht and board the train and when necessary change in Utrecht. The trip from Schiphol to Ede-Wageningen takes you a bit more than one hour.

For Dutch train connections use www.ns.nl, www.thalys.com, www.db.de



The train station is not located directly in Wageningen. This lack is fully compensated by fair means of transportation by buses and taxis. From railway station Ede-Wageningen you can take a taxi (approx. 15 min.). Taxis leave at the north side of the station. You can also come by bus: line 52 (direction Wageningen/ Arnhem) departs from the north side of the station or bus line 88 (Valleilijn, direction Wageningen) leaves from the south side of the station. You have to purchase a ticket from the driver in the bus, which will cost about 2 euros.