Colletotrichum acutatum in strawberry and sweet cherry

*C. acutatum* causes blackspot in strawberry and anthracnose in sweet cherry, which are severe diseases in both crops. In strawberry it is a quarantine disease. Bioforsk (Norway), MTT (Finland) and University of Copenhagen (Denmark) collaborate on *C. acutatum* through the project “Improved control of *Colletotrichum acutatum* in strawberry and sweet cherry”, financed by the Norwegian Research Council and managed by Arne Stensvand at Bioforsk. The principal objective of the project is to improve knowledge of the biology and epidemiology of *Colletotrichum acutatum* in strawberry and sweet cherry and improve management of the diseases caused by the fungus. The sub goals are as follows:

1. A tool for quick and reliable diagnosis of latent infections of *C. acutatum* in strawberry and sweet cherry plant material. Responsible: Univ. of Copenhagen. Contact person: Thomas Sundelin (tsu@life.ku.dk).

2. Clarify the possible movement of *C. acutatum* from various host plants to sweet cherry and strawberry, and the infectivity and aggressiveness of isolates with different host origins in the two crops. Responsible: Bioforsk. Contact persons: Jorunn Børve (jorunn.borve@bioforsk.no) or Arne Stensvand (arne.stensvand@bioforsk.no).

3. Optimised crop rotation by clarifying the ability of *C. acutatum* to survive on plant debris in soil and on other hosts between strawberry crops under Nordic climatic conditions. Responsible: MTT. Contact person: Päivi Parikka (paivi.parikka@mtt.fi).

4. A strategy for improved management of *C. acutatum* in strawberry and sweet cherry based on knowledge obtained in sub goals 1 to 3 and from parallel and complimentary investigations by our international partners. Responsible: Bioforsk. Contact persons: Jorunn Børve (jorunn.borve@bioforsk.no) or Arne Stensvand (arne.stensvand@bioforsk.no).

Master thesis:

Students can choose between taking part in the development of molecular diagnostic tools (primarily at Univ. of Copenhagen), study host adaptation of the fungus (primarily at Bioforsk), or study the ability of the fungus to survive without the host plant or on alternative hosts under Nordic growing conditions (primarily at MTT, Jokioinen). The thesis work will not necessarily be limited to one of the locations. We also collaborate with a project in Belgium on *C. acutatum*, and there may be possibilities to work with the Belgian group as well.

Advisors: The above mentioned persons will be local advisors. One professor/lecturer from either Univ. of Copenhagen, Norwegian Univ. of Life Sciences, or Helsinki Univ. will be the main supervisors.