

TREE BREEDING

A short course

31 Augustus – 11 September 2009



South Africa's Council for Scientific and Industrial Research (CSIR) invites you to attend its annual international short course on tree breeding from 31 August to 11 September 2009.

This course will bring together tree breeders, geneticists, managers and foresters from around the world who are interested in sharing and expanding their knowledge of tree breeding. The course combines theoretical principles with practical aspects and empowers participants to apply this knowledge to breeding programmes at all levels of development and implementation.

The course takes the form of lectures, discussions and visits to research trials and facilities, as well as practical exercises.

WHO SHOULD ATTEND?

Tree breeders, researchers, foresters and managers who want to update their knowledge and develop their skills in tree improvement should attend. The course is intended for those who want to be exposed to the latest information on tree breeding as well as fundamental tree improvement techniques and principles. Participants should have a working knowledge of mathematics/statistics.

COURSE CONTENT

The course lectures and manual will cover the following main themes:

- World trends in forestry
- Introduction to cytology and genetics
- Basic statistical concepts of importance
- Data capture and verification
- Collection, introduction and conservation of genetic diversity
- Breeding strategies
- Introduction to quantitative genetics

- Clonal forestry
- Hybridisation
- Mating designs
- Experimental designs
- Trial establishment and maintenance
- Vegetative propagation
- Advanced selection techniques and genetic gain
- Seed orchards
- Controlled pollination and pollen handling
- Wood properties and wood quality
- Tree pathology
- Biotechnology in forest tree improvement
- Intellectual property management.

Course participants will have the opportunity in a workshop session, to present and discuss examples of applications of breeding techniques in their particular work situation.

WHO ARE WE?

The CSIR is the largest research organisation in South Africa. Over the past four decades the primary focus of the CSIR tree breeding research group has been the genetic improvement of eucalypt and pine species and hybrids for both pulp and solid wood products. The CSIR also develops tools and sound breeding techniques to optimise gain, and accelerate breeding so as to maximise return on investment in breeding. For more information please visit our website www.csir.co.za/nre/tree_improvement/index.html. The CSIR has presented this course since 1993 and delegates from more than 32 countries have attended the course.



LECTURERS

Lecturers from the CSIR, private forestry companies and universities will present the course.

LOGISTICS

The two-week course will be held from 31 August to 11 September 2009. The first week of the course will be presented in **Pretoria**. The second week of the course will be presented in **Nelspruit** and will include field visits to breeding trials, nurseries and seed orchards. The course fee includes transport from Pretoria to Nelspruit and back.



COURSE FEE

'Early Bird' registration and payment
(Before 1 June 2009): R20 600
(note: including 14% VAT)

Normal registration and payment
(After 1 June 2009): R21 600
(note: including 14% VAT).

A reduced rate of R19 000 per delegate is offered to two or more participants from the same company who register on the same day before 1 June 2009.

For the current exchange rate please consult
www.xe.net/ucc/full.shtml.

The course fee includes:

- An English manual on tree breeding techniques in pine and eucalypt species
- Daily shuttle from and to the **recommended** hotel during lecture days
- Transport to field practicals during lecture days
- Lunch on the lecture days
- Return transport from Pretoria to Nelspruit.

Please note that the cost of accommodation, breakfasts and dinners is **NOT** included in the course fee.

REFUNDS

- Payments must be received before the course or payments can be made at the course if organised beforehand.
- Cancellations after 25 July will not be refundable.
- Cancellations before 25 July will be subject to a 10% administration fee.
- Substitute participants will be accepted.

ACCOMMODATION AND TRANSPORT

For information on recommended hotels, airport transfers, daytours or tours before or after the course, please contact our recommended tour operators who will assist with bookings.

Touraco Travel Services
Website: www.touraco.co.za
Email: travel@touraco.co.za

CALCULATORS

Calculations will be done during practical exercises and participants are requested to bring their own hand-held scientific calculators.

RECOMMENDED DRESS

The recommended dress code for the course is casual. Participants are advised to bring a raincoat or waterproof windbreaker. A pair of sturdy shoes or boots will be needed for field visits. Weather details can be obtained from the South African Weather Bureau (www.weathersa.co.za).

REGISTRATION

Registration on-line at (www.csir.co.za/nre/tree_improvement/index.html) or email course coordinator at courses@csir.co.za.

ENQUIRIES:

For more information visit our website at www.csir.co.za/nre/tree_improvement/index.html or contact the course coordinator between 08h00 and 16h00 (Central African time).

Email: courses@csir.co.za (Subject: Tree Breeding)
Telephone: +27 (0)12 841 3762 (Marelize Moolman)
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