

New partnership to improve seed supplies of vital anti-malarial plant

At the Artemisinin Conference in Hanoi, the Centre for Novel Agricultural Products (CNAP) and East-West Seed announced a new partnership to ensure that high yielding seeds from improved varieties of *Artemisia annua* will rapidly be made available for global cultivation.

CNAP, at the University of York, has partnered with leading tropical seed company East-West Seed to produce Artemisia seeds in commercial quantities. This new supply of improved seed will help build up a robust supply chain for the production of Artemisinin Combination Therapies (ACTs), the World Health Organisation recommended treatment for malaria.

Through the partnership, large-scale commercialization and distribution of the seeds to Artemisia growers are expected in 2012, targeting 20% of the global Artemisia cultivation acreage. Annual global demand for ACTs is expected to increase beyond the current level of 250 million treatments to up to 310 million by 2015 and the new high yielding seeds will help achieve the strategic aims of universal coverage of ACTs and access to treatments.

Past field trial results demonstrate that all the newly available varieties will perform well in various growing conditions and under diverse regional agricultural practices. In the trials, plants have been assessed for abundance of yield, robustness, and resistance to pests and diseases.

Bert van der Feltz, VP Sales and Marketing, said 'Through this new partnership with CNAP, East-West Seed can count itself among the many organizations and individuals – national governments, donor foundations, research institutions, universities, pharmaceutical companies and individual philanthropists – who are committed to the elimination and eradication of malaria.'

Dianna Bowles, one of the Co-Principal Investigators at CNAP said 'I am delighted that we have successfully partnered with East-West Seed. This provides an excellent opportunity for the new Artemisia varieties developed at York to make a real difference to the fight against malaria.'

Ian Graham, the CNAP Director and Co-Principal Investigator on the project, said 'This partnership with East-West Seed is excellent for the project and demonstrates CNAP's commitment to delivery as well as top quality research'.

Contacts in CNAP and East-West Seed

CNAP

Caroline Calvert:

Tel:+44(0)1904 328763

Fax: +44(0)1904 328830

Email: caroline.calvert@york.ac.uk

East-West Seed

Michael McDaniel

Tel: +66-2-831-7788

Fax: +66-2-923-7794

Email: michael.mcdaniel@eastwestseed.com

Notes for Editors

1. Malaria

Malaria is one of the world's most serious public health problems, claiming almost a million lives every year and undermining development in some of the world's poorest countries. With new tools and increased malaria funding, there is now real hope of making progress against this disease. A massive scaling up of control efforts is underway, and this includes increased use of ACTs to cure malaria.

2. ACT

Artemisinin Combination Therapies (ACTs) are currently the most effective cure for malaria. Their active ingredient is artemisinin, extracted from the plant *Artemisia annua*. Presently, quality Artemisia seeds are scarce and the world's total production of artemisinin is struggling to meet rising global demand for ACTs. Commercialisation of the new seeds will help meet this additional demand.

3. The Centre for Novel Agricultural Products (CNAP)

CNAP is an award winning strategic research centre based in the Biology Department at the University of York. CNAP is dedicated to realizing the potential of plants as renewable, low-cost factories that produce high-value chemicals and biofuels. Laboratory based discoveries are translated into practice in partnership with industry. www.york.ac.uk/org/cnap/

4. The CNAP Artemisia Research Project

The Artemisia Research Project involves dedicated teams of molecular biologists, plant breeders and horticulturalists led by Professor Dianna Bowles and Professor Ian Graham. With funding from The Bill & Melinda Gates Foundation, CNAP has been developing improved varieties of *Artemisia annua* to stabilise supplies of artemisinin for the production of ACTs. The latest genetic and analytical technologies have been used to accelerate and enhance traditional plant breeding to generate the new, non-GM improved varieties. In 2010 the researchers published the first genetic map of *Artemisia annua*.

www.york.ac.uk/org/cnap/artemisiaproject

5. East-West Seed

East-West Seed is market leader for tropical vegetable seeds in Asia. Using the most advanced technologies in vegetable plant breeding, East-West Seed creates value for farmers by producing Better Seeds for Better Yield™. The company's strategy is based on breeding suitable varieties that allow farmers to be more productive, thereby contributing to agricultural sustainability. East-West seeds are planted in the fields of over 30 million farmers worldwide. The company is Asia based with over 2,000 employees and 12 R&D stations in 7 countries. We live and work in the markets we serve. www.eastwestseed.com

6. The Artemisinin Conference

The Artemisinin Conference 2011 takes place in Hanoi, Vietnam, 2 - 3 November 2011. It is organized by FSC Development Services Ltd. This annual event brings together the key players in the ACT supply chain, from those involved in cultivating *Artemisia annua* through to ACT manufacturers.

7. Images and video footage

Available on request from Caroline Calvert.