

## Curriculum Vitae

SURNAME: van Dam

FIRST NAME(S): Jan Evert Gerard

Date and place of birth: 10 06 1953 Schoonhoven NL

Nationality: Dutch

### Education (*degrees, dates, universities*)

1978	Organic Chemistry	Univ Utrecht	M Sc
1988	Bio-Organic Chemistry and Immunology	Univ Utrecht	Ph D

### Career/Employment (*employers, positions and dates*)

1980-88 researcher Univ. Utrecht, Laboratory for Medical Microbiology and Immunology // Bio-Organic Chemistry

1989-90 consultant Bureau OpdenKamp, Leidschendam, NL

1990-03 researcher, programme coordinator Agrotechnological Research Institute ATO, currently Agrotechnology and Food Innovations A&F, WUR

Since 2003 partime lecturer at Wageningen University in the Agrotechnology and Food Sciences Group on “valorisation of plant production chains”

### Specialisation

(i) main field

Bio-organic Chemistry of natural (plant) components, especially cell wall constituents (e.g. carbohydrates, lignin)

(ii) other fields

Application research ligno-cellulose fibres, fibre crops, fibre quality, fibre modification by chemical, biochemical and physical means.

(iii) current research interest

- Consecutive formation of various cell wall components and their localisation in developing bast fibre bundles in relation to crop performance in agricultural production and (agro) industrial processing.
- The effects of (bio)-chemical and physical treatments of cell wall constituents on the functional properties of fibres and their usefulness as renewable resources for industrial end-use
- Conversion of bio-residues for utilisation as raw materials in industrial processing
- “Green chemicals” production, bioraffinage and bioconversion
- Renewable resources application in building materials

After studies in organic chemistry of natural products and pharmacognosy at the State University of Utrecht, a PhD thesis was elaborated at the department Bio-Organic Chemistry on carbohydrate chemistry and (bio)chemical modification of bacterial polysaccharides.

Since 1990 employed as programme leader at the Agrotechnological Research Institute (ATO-DLO) in Wageningen, The Netherlands in the department Renewable Resources.

Extensive research programmes on new applications for agrofibres (flax and hemp) have been carried out on behalf of the Dutch Ministry of Agriculture, Fisheries and Nature Management. Besides pulp and paper technologies, major activities are oriented on process and product development for plant fibre reinforced composites (thermoplastics as well as thermosets), building and construction materials (mineral fibre replacement, insulation, cement- and fibre boards), geotextiles, packaging, paper and pulp, non-wovens, and other innovative applications.

Major tasks within the department of Biobased Products of A&F are scientific coordination, new business and industrial consultancy and international networking.

Fundamental and applied industrial research is being carried out to develop novel industrial applications for fibre crops (flax, hemp, jute, kenaf, coir) in a variety of end-markets. Investigations are carried out on fibre morphology and chemical composition in relation to fibre quality, fibre extraction and modification processes to improve product properties for specific applications.

In commission of the European Community in Brussels (DG-XII) an extensive market survey has been carried out on the potentials of fibre crops in textile as well as non-traditional industrial applications.

Project evaluations, as an external expert on carbohydrate chemistry and plant fibre technology, have been carried out for the Dutch Government as well as the European Commission, United Nations Food and Agricultural organisation (FAO) and the Common Fund for Commodities (CFC).

Examples of involvement in relevant international projects:

- Jute fibre reinforced composites as packaging material 1995-1998 (CFC/IJO; AEA,UK; IIP India)
- Consultancy – “Coir processing technologies” 1997 (CFC/FAO, Sri Lanka, India)
- Improved bleaching and dyeing of coir fibre (Triade bv, Dutch Min Econ Affairs / SENTER, Coir Board of India)
- Coir based binderless boards 1999-2003, (CFC/FAO, Philippine Coconut Authority, Fiber Industry Development Authority, Philippines)
- Kapok fibre in pillows 2001 (Jade bv, Dutch Min Econ Affairs / SENTER, Indonesia)
- Consultancy – “Cotton stalks for particle board production” 2003 (CFC/ICAC, CIRCOT, India)
- FAO IGG HF 2004, literature survey on Life cycle assessment of fibre crops

Participation in several EU projects concerning fibre crops:

AFPP [FAIR 95-0195]; Validation of Kenaf [FAIR 96-1697]; VALOIR [FAIR 98-3521]; HEMP-SYS [QLK5 CT-02-01363]