

# CURRICULUM VITAE – T.A.S. AVELING

## 1. BIOGRAPHICAL SKETCH

### 1.1 GENERAL INFORMATION

<b>Surname</b>	AVELING				<b>Marital status</b>	Single, adopted daughter (born 06/06/2006 Jayde Thembi)			
<b>First names</b>	THERESA ANN SHEILA				<b>ID Number</b>	6212160040080			
<b>Citizenship</b>	South African				<b>Title</b>	<b>Prof</b>	<b>Female</b>	<b>X</b>	<b>Male</b>
<b>Place of birth</b>	Newcastle, South Africa				<b>Date of birth</b>	16/12/1962			
<b>Population group</b>	<b>African</b>		<b>Coloured</b>		<b>Indian</b>		<b>White</b>	<b>X</b>	<b>Other (Please specify)</b>
<b>Department</b>	Microbiology and Plant Pathology				<b>Position</b>	Associate Professor			
<b>Direct Telephone</b>	012 - 4203264				<b>Direct Telefax</b>	012 – 4204588			
<b>E-mail</b>	terry.aveling@fabi.up.ac.za								
<b>Date of appointment</b>	01 May 1988				<b>Permanent full-time</b>	<b>X</b>	<b>Temporary full-time</b>		

### 1.2 ACADEMIC QUALIFICATIONS OBTAINED

<b>Degree/ Diploma</b>	<b>Field of study</b>	<b>Higher education institution</b>	<b>Year</b>	<b>Distinctions</b>
BSc	Botany; Plant Pathology	University of Natal, Pietermaritzburg	1984	-
BSc(Hons)	Plant Pathology	University of Natal, PMB	1985	-
MSc	Plant Pathology	University of Natal, PMB	1988	-
PhD	Plant Pathology	University of Natal, PMB	1994	

### 1.3 WORK EXPERIENCE TO DATE

<b>Name of employer</b>	<b>Capacity and/or type of work</b>	<b>Period From mm//yy to mm//yy</b>
Dept. Microbiology & Plant Pathology, Univ. of Natal	Temporary Research Assistant Research on the Avocado/ <i>Phytophthora cinnamomi</i> interaction	July 1985, Jan – March 1987
Citrus & Subtropical Fruit Research Institute	Assistant Agricultural Researcher Research on plant pathological problems of avocados and pineapples. Managed the Electron Microscopy Unit.	April 1987 – April 1988
Margaretha Mes Institute for Seed Research, Univ. of Pretoria	Assistant Researcher	May 1988 – Dec 1994

	Research on the bacterial seed-borne diseases of cabbages & fungal seed-borne diseases of onion & garlic	
Dept. of Botany, Univ. of Pretoria	Lecturer Research on seed-borne diseases of canola	Jan 1995 – Dec 1996
Dept. of Botany, Univ. of Pretoria	Senior Lecturer Research on the plant pathology of indigenous food plants grown by resource poor farmers	Jan 1997 – 1999
Dept. of Micro/Plant Path, Univ. of Pretoria	Associate Professor Research on the seed and plant pathology of indigenous food plants grown by resource poor farmers. Seed health and vigour of seeds of a range of crops.	Jan 2000 – to present

## 2. TEACHING ACTIVITIES

### 2.1 Courses presented

Course	Level (e.g. second year, Masters)	Self developed (Yes or No)
Introductory Plant Biology BLG 150	First year (average 150 students)	Yes
Introductory Plant Biology BLG 113	First year (average 150 students)	Yes
Cryptogamic Botany BOT 211	Second year (average 30 students)	No
Fungus Biology BOT 312 Then BOT 317	Third year (average 18 students)	No
Seed Science SWP 781	Honours & Master (average 15 students)	No
Mycology BOT 716	Honours	No
PLG 220 Introductory Plant Pathology and PLG 351	Second year and third year (average 40 students)	No
MBY 261 Growth, activity and control of fungi (from 2013 called Mycology)	Second year (average 380 students)	Yes
PLG 422 Nursery and Seed Pathology	Fourth year (average 15 students)	Yes – Seed pathology section
PLG 754 Crop Diseases	Honours (average 5 students)	Yes

### 2.2 Education and pedagogic courses attended

Course	Year	Institution
Practical Seed Analysis	1988	Department of Agriculture Pretoria
Seed Technology <i>cum laude</i>	1988	Margaretha Mes Institute for Seed Research, University of Pretoria
Molecular and Cell Biology 721 MSB721 <i>cum laude</i>	1988	Post-graduate course, University of Pretoria
Practical Molecular and Cell Biology	1989	Department of Microbiology, University of Cape Town
Electronic Mail Computer Course	1996	Department of Information Technology, University of Pretoria
MS Windows	1996	Department of Information Technology, University of Pretoria

		Pretoria
MS Word for Windows	1996	Department of Information Technology, University of Pretoria
Internet	1996	Department of Information Technology, University of Pretoria
MS Excel for Windows	1997	Department of Information Technology, University of Pretoria
First Aid Training Level 1	1999, 2005	ANRO Pre Hospital Care Services under Risk Management, Continuing Education, University of Pretoria
Community Project Management Skills	2003	Continuing Education, University of Pretoria
Mentoring Skills Course	2003	Continuing Education, University of Pretoria
Assessment Workshop	2003	Continuing Education, University of Pretoria
HIV/AIDS Awareness Course	2005	Continuing Education, University of Pretoria
WebCT High Impact Course	2005	Continuing Education, University of Pretoria
Occupational Health and Safety for Representatives course	2007	Continuing Education, University of Pretoria

### 3. RESEARCH ACTIVITIES

Former supervision or co-supervision ( <i>completed</i> )				
Name of student	Degree/Title of dissertation/ thesis and date	Supervisor	Co-supervisor(s)	Duration of studies (years)
J.E. Smith	MSc (Agric) <b>cum laude</b> 1998 Colletotrichum dematium on stems of cowpea	T.A.S. Aveling	L. Korsten	2
P.M. Labuschagne	PhD 1999 The development of a high technology oyster mushroom industry in South Africa	A. Eicker	T.A.S. Aveling	3
A. Adandonon	MSc 2000 <b>cum laude</b> Damping-off of cowpea in Benin and South Africa	T.A.S. Aveling	N. Labuschagne	2
B. Henning	MSc 2000 Agricultural recycling of sewage sludge for maize and oats cultivation	H.G. Snyman	T.A.S. Aveling	2
N. van den Berg ( <i>nee la Grange</i> )	MSc 2000 <b>cum laude</b> A new disease of cowpea caused by <i>Alternaria cassiae</i>	T.A.S. Aveling	S. Venter	3
Q. Kritzinger	MSc 2000 Storage fungi and mycotoxins associated with cowpea	T.A.S. Aveling	W.F.O. Marasas	2
Y.P. Pakela	PhD 2003 Interaction between <i>Colletotrichum dematium</i> and cowpea	T.A.S. Aveling	T.A. Coutinho	4
J.E. Smith	PhD 2004 Epidemiology of early blight on potatoes in South Africa	L. Korsten	T.A.S. Aveling	5

A. Adandonon	PhD 2004 Damping-off and stem rot of cowpea in Benin caused by <i>Sclerotium rolfsii</i>	T.A.S. Aveling	M. Tamo	4 Part-time
T. Bandounas	MSc 2004 White rust ( <i>Albugo tragopogonis</i> ) of sunflower in South Africa	T.A.S. Aveling	A. Viljoen	5 Part-time
A. Uaciquete	MSc 2004 Epidemiology and control of powdery mildew ( <i>Oidium anacardii</i> Noack.) on cashew nut ( <i>Anacardium occidentale</i> L.) in Mocambique	L. Korsten	T.A.S. Aveling	5 Part-time
M.J. Domola	MSc 2004 Survey and characterisation of sweet potato viruses in South Africa	T.A.S. Aveling	G. Thompson	3 Part-time
M.E. Kola	MSc 2004 Mycoflora and polyphenolics of variously coloured seeds of Bambara groundnut ( <i>Vigna subterranea</i> L. Verdc.)	T.A.S. Aveling	T. Regnier	2
Q. Kritzinger	PhD 2005 Mycotoxins and medicinal compounds of cowpea	T.A.S. Aveling	N. Lall	4
J. Ndunguru	PhD 2005 Molecular characterisation and dynamics of cassava mosaic geminiviruses in Tanzania	T.A.S. Aveling	G. Thompson J. Legg C. Fauquet	3
E.J. van der Linde	PhD 2005 Ergot of nut sedge in South Africa	F.C. Wehner	T.A.S. Aveling	5
Z. Pieterse	MSc 2006 Interaction between <i>Mycogone pernicioso</i> and <i>Agaricus bisporus</i>	T.A.S. Aveling	P.M. Labuschagne	2
T.M. Ramusi	M.Inst.Agrar 2006 Biological and chemical control of seedling diseases of cowpea	T.A.S. Aveling	N. Labuschagne J.E. van der Waals	2
D. Khumalo	M.Inst.Agrar 2006 Seed treatment of cowpea to control seedling diseases	T.A.S. Aveling	Q. Kritzinger	2
V. Govender	PhD 2008 Seed pathology and vigour of maize stored under subsistence farming conditions	T.A.S. Aveling	Q. Kritzinger	3
S. D. Kandolo	M.Inst.Agrar 2007 Effect of fungicide seed treatments on vigour of maize	T.A.S. Aveling	Q. Kritzinger	4 part-time

B.K. Kalonji	M.Inst.Agrar 2007 Biological and chemical control of seedling diseases of lettuce	T.A.S. Aveling	N. Labuschagne J.E. van der Waals	4 part-time
R. Thompson	M.Inst.Agrar 2012 A new method to detect <i>Fusarium</i> spp. on maize	TAS Aveling	R. Blanco Q. Kritzinger	3
J.I.G. Masangwa	MSc 2012 The effect of plant extracts on anthracnose of <i>Phaseolus vulgaris</i> L. and <i>Vigna unguiculata</i> (L.) Walp	TAS Aveling	Q. Kritzinger	4 part-time
A. Labuschagne	MSc. Agric 2013 Efficacy and crop tolerance of Stamina (pyraclostrobin) and Flite (triticonazole) seed treatment formulations against <i>Fusarium</i> , <i>Pythium</i> and <i>Rhizoctonia</i> soilborne diseases of maize	TAS Aveling		3
G. Kgatle	MSc 2013 Pathogenic seed-borne, small-spored <i>Alternaria</i> spp. on sunflower ( <i>Helianthus annuus</i> L.)	TAS Aveling	JE van der Waals	3
N. Rudolph	MSc. Agric 2014 Efficacy of selected rhizobacterial isolates for biocontrol of <i>Rhizoctonia solani</i> and growth promotion of maize in South Africa	TAS Aveling	N Labuschagne	4

#### 4. RESEARCH FUNDING ADMINSTRATED BY TAS AVELING

4.1 Obtaining research funds			
Origin of research funds (e.g. contract research, THRIP, international funding organisations, other(s))	Title of research project or programme	Duration	Money allocated (R)
Department of Agriculture and Water Supply (contract research)	Treatment of cabbage seed to control <i>Xanthomonas campestris</i> p.v. <i>campestris</i>	1988, 1989	R 10 000
Department of Agriculture and Water Supply (contract research)	A study of the seed-borne diseases of onions: <i>Alternaria</i> blotch of onions.	1990 – 1994	R 70 000
Carnia Seed (Pty) Ltd (contract research)	A study of the seed-borne diseases of canola.	1995, 1996	R 10 000
Plant Protection Division, Vegetable and Ornamental Plant Institute, ARC (contract research)	Hot water treatment of seed-borne pathogens of vegetables	1996.	R 2 000
Enerkom (Pty) Ltd (contract research)	Effects of oxihumic-K and fulvic acids on fungal and bacterial growth	1997,1998	R 15 000
ERWAT (Pty) Ltd (contract research)	Utilization of biosolids as an agricultural soil conditioner	1997 - 1999	R 30 000

Seed companies	Seed health, vigour and efficacy of seed treatments	1999-2012	Various
Gauteng Department of Agriculture and Rural Development	The effect of climate change on maize production and fungal diseases in Gauteng and the use of seed vigour tests to identify suitable cultivars for maximum yields	2011-2013	R168 000
EU FP7 TESTA project	Seed health: development of seed treatment methods, evidence for seed transmission and assessment of seed health	2012-2015	R30000000
FRD/NRF (national funding) <b>Primary grant-holder</b> <b>C3 - rated</b> <b>Re-evaluated in 2004</b> <b>C2 – rated</b> <b>Re-evaluated in 2009</b> <b>C2 - rated</b>	Plant pathogens of indigenous food plants. Seed health and vigour aspects on a range of different crops.	1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014	R 54 000 R 66 000 R 76 000 R 100 000 R 113 000 R 118 000 R145 000 R202 000 R146 500 R168 000 R168 000 R168 000 R168 000 R168 000 R 40 000 R 40 000 R 40 000 R 40 000 R 40 000

## 5. RESEARCH OUTPUTS

### 5.1 Publications in peer-reviewed or refereed journals

Most recent research involves confidential reports for chemical companies and hence has not been published (see below).

1. AVELING, T.A.S., GOVENDER, V., KANDOLO, D.S. and KRITZINGER, Q. 2013. The effects of treatments with selected pesticides on viability and vigour of maize (*Zea mays*) seeds and seedling emergence in the presence of *Fusarium graminearum*. *Journal of Agricultural Science* 151(4):474-481.
2. MASANGWA, J.I.G., AVELING, T.A.S. and KRITZINGER, Q. 2013. Screening of plant extracts for antifungal activities against *Colletotrichum* species of common bean (*Phaseolus vulgaris* L.) and cowpea (*Vigna unguiculata* (L.) Walp). *Journal of Agricultural Science* 151(4): 482-491.
3. THOMPSON, R.S., AVELING, T.A.S. and BLANCO PRIETO, R. 2013. A new semi-selective medium for *Fusarium graminearum*, *F. proliferatum*, *F. subglutinans* and *F. verticillioides* in maize seed. *South African Journal of Botany* 84: 94–101.
4. AVELING, T.A.S. and BLANCO, R. 2011. Seed health testing in the International Seed Testing Association. *Inoculum* 62(3): 7-8, supplement to *Mycologia* 103(4).

5. DOMOLA, M.J., THOMPSON, G.J., AVELING, T.A.S., LAURIE, S.M., STRYDOM, H., & VAN DEN BERG, A.A. 2008. Sweet potato viruses in South Africa and the effect of viral infection on storage root yield. *African Plant Protection*. 14: 15-23.
6. GOVENDER, V. AVELING, T.A.S. & KRITZINGER, Q. 2008. The effect of traditional storage methods on germination and vigour of maize (*Zea mays* L.) from northern KwaZulu-Natal and southern Mocambique. *SA. J. Bot.* 74. 190-196.
7. ADANDONON, A., AVELING, T.A.S., LABUSCHAGNE, N. & TAMO, M. 2006. Biocontrol agents in combination with *Moringa oleifera* extract for integrated control of *Sclerotium*-caused cowpea damping-off and stem rot. *European Journal of Plant Pathology* 115:409-418. Doi 10.1007/s10658-006-9031-6.
8. KRITZINGER, Q., AVELING, TAS & VAN DER MERWE, CF. 2006. Phytotoxic effects of fumonisin B<sub>1</sub> on cowpea seed. *Phytoparasitica* 34: 178-186.
9. NDUNGURU, J., LEGG, J., FOFANA, I.B.F., AVELING, T., THOMPSON, G. & FAUQUET, C. 2006. Identification of a defective molecule derived from DNA-A of the bipartite begomovirus of East African cassava mosaic virus. *Plant Pathology* 55: 2-10.
10. NDUNGURU, J., LEGG, J., AVELING, T., THOMPSON, G. & FAUQUET, C. 2006. Restriction and sequence analysis of PCR-amplified viral DNAs suggests the existence of different cassava mosaic geminiviruses associated with cassava mosaic disease in Tanzania. *Annals of Applied Biology* (In press).
11. ADANDONON, A., AVELING, TAS., LABUSCHAGNE, N & AHOHUENDO, BC. 2005. Etiology of and effect of environmental factors on damping-off and stem rot of cowpea in Benin. *Phytoparasitica* 33: 65-72.
12. ADANDONON, A., AVELING, TAS., VAN DER MERWE, A. & SANDERS, G. 2005. Genetic variation among *Sclerotium* isolates from Benin and South Africa, determined using mycelial compatibility and ITS rDNA sequence data. *Australasian Plant Pathology* 34: 1-7.
13. AVELING, TAS & POWELL, AA. 2005. Effect of seed storage and seed coat pigmentation on susceptibility of cowpeas to pre-emergence damping-off. *Seed Science and Technology* 33(2): 461-470.
14. KRITZINGER, Q., LALL, N., & AVELING, T.A.S. 2005. Antimicrobial activity of cowpea (*Vigna unguiculata*) leaf extracts. *South African Journal of Botany* 71(1): 45-48.
15. NDUNGURU, J., LEGG, J., AVELING, T., THOMPSON, G. & FAUQUET, C. 2005. Molecular biodiversity of cassava begomoviruses in Tanzania: Evolution of cassava geminiviruses in Africa and evidence for East Africa being a center of diversity of cassava geminiviruses. *Virology Journal* 2: 21 doi: 1186/1743-422X-2-21.
16. NDUNGURU, J., TAYLOR, N.J., YADAV, J., ALI, H., LEGG, J., AVELING, T., THOMPSON, G. & FAUQUET, C.M. 2005. Application of FTA<sup>®</sup> paper technology for sampling, recovery and molecular characterization of viral pathogens and transgenes from plant tissues. *Virology Journal* 2: 45. doi:10.1186/1743-422X-2-45.
17. ADANDONON, A., AVELING, TAS. & TAMO, M. 2004. Occurrence and distribution of cowpea damping-off and stem rot and associated fungi in Benin. *Journal of Agricultural Science* 142: 1-6.
18. AVELING, T. 2003. Book review: Taxonomy and Pathology of *Cylindrocladium* (*Calonectria*) and Allied Genera, ed. P.W. Crous. *Journal of Agricultural Science* 140: 125-126.

19. KRITZINGER, Q., AVELING, T.A.S., MARASAS, W.F.O., RHEEDER, J.P., VAN DER WESTHUIZEN, L. & SHEPHARD, G.J. 2003. Mycoflora and fumonisin mycotoxins associated with cowpea [*Vigna unguiculata* (L.) Walp] Seeds. *Journal of Agricultural and Food Chemistry* 51(8): 2188-2192.
20. VAN DEN BERG, N., AVELING, T.A.S. & VENTER, S.L. 2003. Infection studies of *Alternaria cassiae* on cowpea. *Australasian Plant Pathology* 32(1): 33-38.
21. VAN DER WAALS, J.E., KORSTEN, L., AVELING, T.A.S. & DENNER, F.D.N. 2003. Influence of environmental factors on field concentrations of *Alternaria solani* conidia above a South African potato crop. *Phytoparasitica* 31(4): 353-364.
22. KRITZINGER, Q., AVELING, T.A.S. & MARASAS, W.F.O. 2002. Effect of essential plant oils on storage fungi, germination and emergence of cowpea seeds. *Seed Science and Technology* 30(3): 609-619.
23. PAKELA, Y.P., AVELING, T.A.S. & COUTINHO, T.A. 2002. Effect of plant age, temperature and dew period on the severity of anthracnose of cowpea caused by *Colletotrichum dematium*. *African Plant Protection* 8: 65-68.
24. VAN DEN BERG, N., AVELING, T.A.S. & VAN DER MERWE, C.F. 2002. Conidial morphology and development of *Alternaria cassiae* from cowpea. *African Plant Protection* 8: 69-74.
25. VAN DEN BERG, N., AVELING, T.A.S. & VENTER, S.L. 2002. The evaluation of six fungicides for reducing *Alternaria cassiae* on cowpea seed. *Crop Protection* 21: 501-505.
26. ADANDONON, A., AVELING T A S, LABUSCHAGNE, N. & AHOHUENDO B C. 2001. *Pythium/Rhizoctonia* complex causing damping-off of cowpea in South Africa. *African Plant Protection* 7(2): 111-113.
27. HENNING, B.J., SNYMAN H.G., & AVELING, T.A.S. 2001. Plant-soil interactions of sludge-borne heavy metals and effect on maize (*Zea mays* L.) seedling growth. *Water SA* 27(1): 87-95.
28. VAN DER WAALS, J.E., KORSTEN, L. & AVELING, T.A.S. 2001. A review of early blight of potato. *African Plant Protection* 7(2): 91-102.

19 PUBLICATIONS between 1989 to 2000.

## 5.2 Confidential reports for registration of seed treatments in South Africa

Tactical attempts to close the “innovation chasm” focus mainly or exclusively on connecting the human capital function (universities and technikons) more and more closely with the market. While this seems logical initially, it drives the academic system towards short-term, incremental problem solving and consulting. The resulting downgrading of academic research (relative to greener pastures elsewhere) precipitates teaching overload for existing staff, fewer postgraduates with broad research experience, and “privatisation” of knowledge. It generates an endless search for “efficiencies” in an under-financed system.

**BASF South Africa:** 2011. Efficacy and crop tolerance of BAS 500 12 F and BAS 595 05 F seed treatment formulations against *Fusarium*, *Pythium* and *Rhizoctonia* soilborne diseases of maize.

**BAYER CROPSCIENCE:** 2010. Efficacy and crop tolerance of Fungicide X against soilborne diseases of maize.

**Syngenta South Africa:** 2010. The Efficacy and Crop Tolerance of Celest XL (Fludioxonil and



Mefenoxam) as a seed treatment against soilborne diseases (*Fusarium* and *Pythium* spp.) of sunflower (*Helianthus annuus*).

**Syngenta South Africa:** 2009. The Efficacy and Crop Tolerance of Celest XL (Fludioxonil and Mefenoxam) as a seed treatment against soilborne diseases (*Fusarium* and *Pythium* spp.) of soybeans (*Glycine max*)

**Syngenta South Africa:** 2007. Effect of fungicide seed treatments on germination and vigour of groundnut (*Arachis hypogaea* L.) seed.

**Syngenta South Africa:** 2006. Efficacy and crop tolerance of CRUISER OSR (thiamethoxam, fludioxonil & mefenoxam) against blackleg (*Phoma lingam*) and stem blight (*Sclerotinia sclerotiorum*) of canola.

**Syngenta South Africa:** 2005. Efficacy and crop tolerance of DYNASTY (fludioxonil, mefenoxam and azoxystrobin) on cotton against various soilborne diseases.

**Syngenta South Africa:** 2005. Efficacy and crop tolerance of APRON XL 350 ES (mefenoxam), Subdue MAXX and CELEST (100 FS) against soilborne diseases on lettuce.

**Syngenta South Africa:** 2005. Efficacy and crop tolerance of APRON XL 350 ES (mefenoxam), Subdue MAXX and CELEST (100 FS) against soilborne diseases on various plants

**Syngenta South Africa:** 2004. Evaluation of phytotoxicity of APRON XL 350 ES (mefenoxam), SUBDUE MAXX (mefenoxam) and CELEST (100 FS) (fludioxonil) to be used against soilborne diseases of various crops

**Syngenta South Africa:** 2004. Efficacy and crop tolerance of CELEST XL (fludioxonil and mefenoxam) against seed and soilborne diseases of dry beans

### 5.3 Books and/or chapters in books

AVELING, T.A.S. and GOZSYNSKA, T. 2008. Bacterial seedborne diseases in South Africa in Bacterial Diseases of Plants in South Africa. Edited by T.A. Coutinho. Briza Publications, South Africa, pp. 12-17.

KRITZINGER, Q., AVELING, T.A.S., MARASAS, W.F.O., SHEPARD, G.S. & LEGGOTT, N. 2002. Detection of fumonisin B1 in cowpea seeds. In: C.A. Fatokun, S.A. Tarawali, B.B. Singh, P.M. Kormawa and M. Tamo (eds). Challenges and opportunities for enhancing sustainable cowpea production. Proceedings of the World Cowpea Conference III, International Institute of Tropical Agriculture, Ibadan, Nigeria, 4-8 September 2000. IITA, Ibadan, Nigeria. Pp. 147-153.

### 5.4 Non-refereed publications or popular articles

AVELING, T.A.S. 2009. Seed storage on farms. SA Grain. March 2009: 64-65.

Labuschagne, P.M., Aveling, T.A.S., and Korsten L., 2004. Mushroom casing research. *The Spawn Run* March 2004 pp. 15-20.

Labuschagne, P.M., Aveling, T.A.S., and Korsten L., 2004. Mushroom Casing Research update June 2004. *The Spawn Run* June 2004 pp. 5-6.

Labuschagne, P.M., Aveling, T.A.S., and Korsten L., 2004. Alternative Materials for Mushroom Casing September 2004. *The Spawn Run* September 2004 pp. 15-17.

AVELING, TERRY. 1992. Seed pathology - How important is it to the seedling grower? *The Leaflet* 6(3):10-14.

## 6 OTHER SCHOLARLY RESEARCH-BASED CONTRIBUTIONS

### 6.1 Participation in conferences, workshops and short courses - specify type of contribution

#### 6.1.1 National

AVELING, T.A.S. 2013. TESTA: Development of seed treatment methods, evidence for seed transmission and assessment of seed health (EU FP7 KBBE.2012.1.2-05). South African Society of Plant Pathology congress, Klein Kariba, Warmbaths.

KGATLE, M.G., VAN DER WAALS, J.E. and AVELING, T.A.S. 2013. Etiology of *Alternaria helianthicola*, a leaf spot disease on sunflower. South African Society of Plant Pathology congress, Klein Kariba, Warmbaths.

NDYOKO, O., AVELING, T., THOMPSON, R. and BLANCO, R. 2013. Fungal maize diseases in Gauteng and the use of seed vigour tests to identify suitable cultivars in a changing environment South African Society of Plant Pathology congress, Klein Kariba, Warmbaths.

AVELING, T.A.S. 2012. Symposium on Interactions and Soilborne Diseases. 11-13 September 2012. Plant Protection Research Institute, Stellenbosch. ATTENDANCE.

RUDOLPH, N., AVELING, T.A.S. and LABUSCHAGNE, N. 2012. Efficacy of selected rhizobacterial isolates for growth promotion of maize and biocontrol of *Rhizoctonia solani*. Southern African Society for Plant Pathology Northern Branch one-day postgraduate symposium, 31 August, University of Pretoria, Pretoria.

RUDOLPH, N., AVELING, T.A.S. and LABUSCHAGNE, N. 2011. Efficacy of selected Rhizobacterial isolates for growth promotion of maize in South Africa. South African Society for Microbiology, Cape Town.

KGATLE, M.G., AVELING, T.A.S. and HALL, A. N. 2011. A study of the latent infection of *Alternaria* spp. on *Helianthus annuus* seeds and leaves. MSSA, CSIR, Pretoria.

KGATLE, M.G. and AVELING, T.A.S. 2011. *Alternaria* sp.: A new pathogen of sunflower? South African Society for Microbiology, Cape Town.

LABUSCHAGNE, A. H. and AVELING, T.A.S. 2011. Fungicide seed treatment of maize for control of *Pythium*, *Fusarium* and *Rhizoctonia*. South African Society for Microbiology, Cape Town.

MASANGWA, J.I.G., AVELING, T.A.S. and KRITZINGER, Q. 2011. *In vitro* screening of plant extracts for antifungal activities against *Colletotrichum* species of common bean and cowpea. South African Society of Plant Pathology biennial congress, Kruger Park.

LABUSCHAGNE, A.H. and AVELING, T.A.S. 2011. Fungicide seed treatment of maize: Effect on germination and vigour. South African Society of Plant Pathology biennial congress, Kruger Park.

AVELING, T.A.S. and BLANCO, R. 2009. The International Seed Testing Association and Seed

Health Testing. South African Association of Botany Annual conference, Stellenbosch.

THOMPSON R.S, AVELING T.A.S. AND BLANCO PRIETO, R. 2009. Detection of fungal pathogens in maize seed. South African Society of Plant Pathology, Gordons Bay.

RAMAGODI, T.F., AVELING, T.A.S. AND BLANCO, R. 2009. Seed Health and vigour of sweet sorghum in South Africa. South African Society of Plant Pathology, Gordons Bay.

AVELING, T.A.S. 2008. Symposium on Soil Health and Soilborne Plant Diseases. 17-18 September 2007. Plant Protection Research Institute, Stellenbosch. ATTENDANCE.

GOVENDER, V., AVELING, T.A.S., KRITZINGER, Q. AND VAN DER MERWE, C.F. 2008. The effect of fungicide seed treatments on the ultrastructure of maize seeds. 46<sup>th</sup> Annual Conference Microscopy Society of Southern Africa, 21-25 July 2008, University of Botswana, Gaborone, Botswana. BEST STUDENT POSTER AWARD.

AVELING, T.A.S. and PRIETO BLANCO, R. 2007. The effect of fungicide treatment on germination, vigour and seedling emergence. Soilborne Plant Disease Symposium, ARC-Vredenburg Research Center, Stellenbosch. 19-20 September 2007. INVITED SPEAKERS

AVELING, T.A.S. 2006. Symposium on Micronutrients and Soilborne Plant Diseases. 20-21 September 2006. Plant Protection Research Institute, Stellenbosch. ATTENDANCE.

VAN DER WATT, N., AVELING, T. A.S. & VAN DER MERWE, C.F. 2006. Surface topography of various legumes with different testa colours. 45<sup>th</sup> Annual Conference Microscopy Society of Southern Africa, 3-8 December 2006. University of Port Elizabeth, Port Elizabeth. POSTER.

AVELING, T.A.S. 2005. Chairperson of the session: Microbiology. 44<sup>th</sup> Annual Conference Microscopy Society of Southern Africa 5 - 7 December 2005. University of KwaZulu Natal, Pietermaritzburg.

AVELING, T.A.S. 2005. Sustainable Agriculture and Poverty Alleviation Seminar. 05-06 October 2005. Holiday Inn Johannesburg International Airport Hotel, Johannesburg. Faculty of Natural and Agricultural Sciences representative nominated by the Dean.

AVELING, T.A.S. 2005. Validation in international seed testing. Test and Measurement Conference, National Laboratory Association. 5-7 September 2005. Emperors Palace Convention Resort, Johannesburg. PAPER.

AVELING, T.A.S. 2005. Symposium on Ecology and Soilborne Plant Diseases. 21-22 September 2005. Plant Protection Research Institute, Stellenbosch.

ADANDONON, A., AVELING, T.A.S., LABUSCHAGNE, N. & TAMO, M. 2005. Control of *Sclerotium*-caused cowpea damping off and stem rot using *Moringa oleifera* extract and biocontrol agents. Joint Congress of Southern African Society for Plant Pathology, African Mycological Association and Medical Mycology in Africa. 22-25 January 2005. Hartenbos Beach Resort, Mossel Bay. POSTER.

KALONJI, J.B., AVELING, T.A.S., LABUSCHAGNE, N. & VAN DER WAALS, J. 2005. Efficacy of fungicides and biological control agents against seedling diseases of lettuce. Joint Congress of Southern African Society for Plant Pathology, African Mycological Association and Medical Mycology in Africa. 22-25 January 2005. Hartenbos Beach Resort, Mossel Bay. POSTER.

KRITZINGER, Q. & AVELING, T.A.S. 2005. Prospects and problems associated with cowpea cultivation by resource poor farmers in Mpumalanga, South Africa. Joint Congress of Southern African Society for Plant Pathology, African Mycological Association and Medical Mycology in Africa. 22-25 January 2005. Hartenbos Beach Resort, Mossel Bay. PAPER.

RAMUSI, T.M., AVELING, T.A.S., VAN DER WAALS, J. & LABUSCHAGNE, N. 2005. Biological and fungicidal control of seedling diseases of cowpea caused by *Fusarium solani*, *Pythium* sp. and *Rhizoctonia solani*. Joint Congress of Southern African Society for Plant Pathology, African Mycological Association and Medical Mycology in Africa. 22-25 January 2005. Hartenbos Beach Resort, Mossel Bay. POSTER.

DOMOLA, M.J., LAURIE, S.M., VAN DEN BERG A.A., THOMPSON, G.J. & AVELING, T.A.S. 2004. Effects of virus infection on the yield of sweet potatoes. 42nd Congress of the Southern African Society of Plant Pathology. 18-21 January 2004. Cathedral Peak, Kwazulu Natal. POSTER.

DOMOLA, M.J., STRYDOM, H., THOMPSON, G.J. & AVELING, T.A.S. 2004. Survey of viruses infecting sweet potatoes grown by small-scale farmers in South Africa. 42nd Congress of the Southern African Society of Plant Pathology. 18-21 January 2004. Cathedral Peak, Kwazulu Natal. PAPER.

KRITZINGER, Q. and AVELING, T.A.S. 2004. Phytotoxicity of fumonisin B1 on cowpea seeds. 42nd Congress of the Southern African Society of Plant Pathology. 18-21 January 2004. Cathedral Peak, Kwazulu Natal. PAPER.

DE MEYER, E. & AVELING, T.A.S. 2003. Biological control of *Sclerotium rolfsii* on Bambara groundnuts. 41st Congress of the Southern African Society for Plant Pathology, 19 - 22 January, BainesGame Lodge, Bloemfontein. POSTER.

KOLA, M.E., AVELING, T.A.S., REGNIER, T. & HALL, A.N. 2003. Surface topography and polyphenols of bambara groundnut seed coats. 42<sup>nd</sup> Annual Conference Microscopy Society of Southern Africa 3-5 December. University of Cape Town, Cape Town. POSTER.

KRITZINGER, Q., AVELING, T.A.S. & VAN DER MERWE, C.F. 2003. Effect of fumonisins on the ultrastructure of cowpea seed. 42<sup>nd</sup> Annual Conference Microscopy Society of Southern Africa 3-5 December. University of Cape Town, Cape Town. POSTER.

KRITZINGER, Q., AVELING, T.A.S., MARASAS, W.F.O., RHEEDER, J.P., VAN DER WESTHUIZEN, L. and SHEPHARD, G.S. 2003. Mycoflora and fumonisin mycotoxins associated with cowpea (*Vigna unguiculata* (L.) Walp) seeds. 41st Congress of the Southern African Society for Plant Pathology, 19 - 22 January, Baines Game Lodge, Bloemfontein. PAPER.

DOMOLA, M.J., JERICHO, C., STRYDOM, H., AVELING, T. & THOMPSON, G.J. 2002. Survey and characterisation of viruses infecting sweet potatoes grown by resource poor farmers in South Africa. 40<sup>th</sup> South African Society for Plant Pathology 20 – 23 January, Dikololo, Gauteng. POSTER.

KRITZINGER, Q., AVELING, T.A.S. & MARASAS, W.F.O. 2002. Control of storage fungi on cowpea seed using essential oils. 40<sup>th</sup> South African Society for Plant Pathology 20 – 23 January, Dikololo, Gauteng. POSTER.

ADANDONON, A., AVELING, T.A.S., LABUSCHAGNE, N. & AHOHUENDO, B. 2001. Epidemiology of the damping-off disease in the Ouémé valley, Benin. 39<sup>th</sup> South African Society for Plant Pathology, Greenway Woods, Nelspruit. PAPER.

AVELING, T.A.S. & POWELL, A.A. 2001. Susceptibility of cowpea seeds with different seed coat colours to damping-off. 39<sup>th</sup> South African Society for Plant Pathology, Greenway Woods, Nelspruit. PAPER.

KRITZINGER, Q., AVELING, T.A.S., MARASAS, W.F.O., SHEPHARD, G.S. & LEGGOTT, N.L. 2001. Mycotoxins associated with cowpea seeds. 39<sup>th</sup> South African Society for Plant Pathology, Greenway Woods, Nelspruit. POSTER.

- VAN DEN BERG, N. & AVELING, T.A.S. 2001. Evaluation of six fungicides for controlling *Alternaria cassiae* on cowpea seeds. 39<sup>th</sup> South African Society for Plant Pathology, Greenway Woods, Nelspruit. POSTER.
- AVELING, T.A.S. & POWELL, A.A. 2000. Surface topography of cowpea seed with different testa colours. 39<sup>th</sup> Annual Conference Microscopy Society of Southern Africa, Rhodes University, Grahamstown. 6-8 December 2000. PAPER.
- HENNING, B. J., SNYMAN, H. G. & AVELING, T.A.S. 2000. Plant-soil interactions of sludge-borne heavy metals and the effect on maize seedling growth. WISA 2000 Biennial conference and exhibition, Sun City, South Africa. , May 28- June 1, 2000. PAPER.
- PAKELA, Y.P., AVELING, T.A.S., KOCH, S.H. & COUTINHO, T.A. 2000. Characterisation of isolates of *Colletotrichum dematium* based on cultural characteristics and vegetative compatibility groups. Microscopy Society of Southern Africa (MSSA) Conference, Rhodes University, Grahamstown, 6-8 December 2000. PAPER.
- PAKELA, Y. P., VAN DER MERWE, C. F., AVELING, T. A. S. & COUTINHO, T. A. 2000. Formation of acervuli by *Colletotrichum dematium* on cowpea. BioY2K Combined Millenium Conference, Rhodes University, Grahamstown, 23-25 January 2000. PAPER.
- VAN DEN BERG, N., & AVELING, T.A.S. 2000. Infection of cowpea by *Alternaria cassiae*. Microscopy Society of Southern Africa (MSSA) Conference, Rhodes University, Grahamstown, 6-8 December 2000. **Wirsam Scientific Prize for best student paper**
- KRITZINGER, Q., MALAN, C. & AVELING, T.A.S. 1999. Effects of oxifulvic complexes on bacterial and fungal growth. 37<sup>th</sup> Congress of the Southern African Society for Plant Pathology. University of Natal, Pietermaritzburg. POSTER.
- LA GRANGE, N., AVELING, T.A.S. & Venter, S.L. 1999. A new disease of cowpea caused by *Alternaria cassiae*. 37<sup>th</sup> Congress of the Southern African Society for Plant Pathology. University of Natal, Pietermaritzburg. POSTER. **Won the SASPP Best Poster Award.**
- MABENA, L., SERFONTEIN, J., LUBBE, E., AVELING, T. & KORSTEN, L. 1999. Detection of seedborne bacterial pathogens of cowpea (*Vigna unguiculata* (L.) Walp. 37<sup>th</sup> Congress of the Southern African Society for Plant Pathology. University of Natal, Pietermaritzburg. PAPER.
- PAKELA, Y.P. & AVELING, T.A.S. 1999. The necrotrophic phase of *Colletotrichum dematium* on cowpea. 37<sup>th</sup> Congress of the Southern African Society for Plant Pathology. University of Natal, Pietermaritzburg. POSTER.
- HENNING, B.J., SNYMAN, H.G. & AVELING, T.A.S. 1998. The effect of sewage sludge on maize (*Zea mays* L.) cultivation. South African Academy for Science and Art: Congress for the Division Biology and Agriculture. University of Pretoria, Pretoria. PAPER.
- LA GRANGE, N. & AVELING, T.A.S. 1998. Conidial forms of *Alternaria cassiae*. 37<sup>th</sup> Annual Conference of the Microscopy Society of Southern Africa. RAU, Johannesburg. POSTER. **Won the MSSA Best Poster Award.**
- LA GRANGE, N., & AVELING, T.A.S. 1998. Fungal leaf diseases of cowpea in South Africa. 36<sup>th</sup> Congress of the Southern African Society for Plant Pathology. Champagne Sports Resort, Drakensberg. PAPER.
- PAKELA, Y.P., VAN DER MERWE, C.F. & AVELING, T.A.S. 1998. A preparation technique for

observing the infection process of *Colletotrichum dematium* on cowpea. 37th Annual Conference of the Microscopy Society of Southern Africa. RAU, Johannesburg. POSTER.

SMITH, J.E., KORSTEN, L. & AVELING, T.A.S. 1998. Infection and colonization of cowpea stems by *Colletotrichum dematium*. 36th Congress of the Southern African Society for Plant Pathology. Champagne Sports Resort, Drakensberg. PAPER.

29 PRESENTATIONS FROM 1985 TO 1997

### 6.1.2 International

AVELING, T. and HENRY, C. 2014. Development of seed treatment methods: evidence for seed transmission and assessment of seed health (TESTA) in Biodiversity of African plants. Challenges in a changing world. Abstracts of the XXth AETFAT Congress, 13-17 January. Stellenbosch, South Africa. Scripta Botanica Belgica 52: 36.

AVELING, T., KGATLE, G., RAMUSI, M., FLETT, B. and TRUTER, M. 2014. The morphological and molecular identification of *Alternaria* species on sunflower (*Helianthus annuus*) in South Africa in Biodiversity of African plants. Challenges in a changing world. Abstracts of the XXth AETFAT Congress, 13-17 January. Stellenbosch, South Africa. Scripta Botanica Belgica 52: 37.

MANGWENDE, E., AVELING, T., THOMPSON, R. and KRITZINGER, Q. A survey of the seed-borne fungal mycoflora associated with herb seeds in South Africa Biodiversity of African plants. Challenges in a changing world. Abstracts of the XXth AETFAT Congress, 13-17 January. Stellenbosch, South Africa Scripta Botanica Belgica 52: 265.

AVELING, T.A.S. and MUNKVOLD, G.P. 2013. Global standards in seed health testing. 10<sup>th</sup> International Congress of Plant Pathology, 25-30 August. Beijing, China. INVITED SPEAKER.

AVELING, T.A.S. 2013. Report of the Seed Health Committee for the triennium 2010-2013. International Seed Testing Association Congress, 11-18 June 2013, Antalya, Turkey.

AVELING, T.A.S. 2012. Report of the Seed Health Committee 2011. International Seed Testing Association Annual Meeting, 10-15 June 2012, Venlo, The Netherlands.

AVELING, T.A.S. 2011. Report of the Seed Health Committee for the triennium 2007-2010. International Seed Testing Association Annual Meeting, 13-16 June 2011, Zurich, Switzerland.

AVELING, T.A.S. and BLANCO, R. 2011. Seed health testing in the International Seed Testing Association. 79<sup>th</sup> Mycological Society of America Annual Meeting, 1-6 August 2011, Fairbanks, Alaska.

CHRISTIE, J.B., AVELING, T.A.S., OH, E., PEGG, K.G. and VAN DEN BERG, N. 2011. Factors influencing *Phytophthora* root rot resistance in avocado. 7th World Avocado Congress, 5-9 September 2011, Cairns, Australia. POSTER.

AVELING, T.A.S. 2010. Report of the Seed Health Committee 2009. International Seed Testing Association Congress, 15 – 23 June 2010, Cologne, Germany.

MASANGWA, J.I.G., AVELING, T.A.S. and KRITZINGER, Q. 2010. Antifungal activities of plants extracts against *Colletotrichum* species of common bean and cowpea. International Mycology Congress, 1- 6 August 2010, Edinburgh, Scotland.

AVELING, T.A.S., THOMPSON, R. AND BLANCO PRIETO, R. 2009. The International Seed Testing Association method validation system: Case study of *Fusarium verticillioides* on *Zea mays* seeds. 4th Seed Health Conference, September 2009, Wroclaw, Poland. PLENARY PAPER.

AVELING, T.A.S. 2009. Report of the Seed Health Committee 2008. International Seed Testing Association Annual Meeting, 13-18 June 2009, Zurich, Switzerland.

KRITZINGER, Q., KAFUA, L., YAZDI, S.E. AND AVELING, T.A.S. 2009. *Fusarium* species and fumonisins associated with cowpea seed: Occurrence, phytotoxicity and biological control. 4th Seed Health Conference, September 2009. Wroclaw, Poland.

AVELING, T.A.S. 2008.: Report of the Seed Health Committee 2007. International Seed Testing Association Annual Meeting, 14-20 June 2008, Bologna, Italy.

AVELING, T.A.S AND SWART, G. 2008.: Chair of the Workshop – Treated seed and seed health testing. International Seed Testing Association – Seed Health Symposium, 14-18 April 2008, Kruger Park, South Africa

GOVENDER, V., AVELING, T.A.S. AND KRITZINGER, Q. 2008. Maize chronicles: the journey from the field to storage – the untold story! International Seed Testing Association – Seed Health Symposium, 14-18 April 2008, Kruger Park, South Africa

MUDAU, V., CAWE, N. AND AVELING, T.A.S. 2008. Regulation of import and export of seeds in South Africa. International Seed Testing Association – Seed Health Symposium, 14-18 April 2008, Kruger Park, South Africa

THOMPSON, R.S., AVELING, T.A.S., KRITZINGER, Q. AND BLANCO PRIETO, R. 2008. Development of a method to test for *Fusarium verticillioides* on *Zea mays* seeds. International Seed Testing Association – Seed Health Symposium, 14-18 April 2008, Kruger Park, South Africa

AVELING, T.A.S. 2007. Report of the Seed Health Committee for the triennium 2004-2007. 28<sup>th</sup> International Seed Testing Association Congress, 5-11 May 2007, Iguassu Falls, Brazil. PAPER.

GOVENDER, V., AVELING, T.A.S. and KRITZINGER, Q. 2007. Effect of pesticides on maize seed germination, emergence and control of *Fusarium graminearum*. XVI International Plant Protection Congress (IPCC) (in association with the BCPC International Congress - Crop Science & Technology 2007) 15 - 18 October 2007, SECC, Glasgow. British Crop Protection Council. UK. Volume 2: 744-745. ISBN 139781901396676. 2<sup>nd</sup> PLACE BEST STUDENT POSTER.

GOVENDER, V., KANDOLO, D.S., AVELING, T.A.S. & KRITZINGER, Q. 2007. Effect of fungicide seed treatment on germination and vigour of maize seed during storage. 28<sup>th</sup> International Seed Testing Association Congress, 5-11 May 2007, Iguassu Falls, Brazil. PAPER – INVITED SPEAKER.

NDUNGURU, J., LEGG, J., AVELING, T.A.S., THOMPSON, G. & FAUQUET, C.M. 2007. Genetic variability of East African cassava mosaic virus in Tanzania. Biotechnology, breeding and seed systems for African crops conference. 26–29 March 2007, Maputo, Mozambique. PAPER.

AVELING, T.A.S. 2006. Report of the Seed Storage Committee for the year 2005. International Seed Testing Association Annual Meeting, 26-29 June 2006, Zurich, Switzerland. PAPER.

ADANDONON, A., AVELING, T.A.S. & TAMO, M. 2005. A new laboratory technique for rapid screening of cowpea cultivars for resistance to damping-off and stem-rot caused by *Sclerotium rolfsii*.

1<sup>st</sup> International Edible Legume Conference in conjunction with 4<sup>th</sup> World Cowpea Congress, 17-21 April 2005, International Convention Centre, Durban, South Africa. PAPER

AVELING, T.A.S., KRITZINGER, Q., PAKELA, Y.P. & REGNIER, T. 2005. Seed pathological aspects of cowpea II. 4<sup>th</sup> Annual Conference: USAID-African Partnership in Biotechnology: The path to product development. 15-17 November 2005, Centurion Lake Hotel, Centurion, South Africa. POSTER.

AVELING, T.A.S. 2005. 5<sup>th</sup> International Seed Testing Association Seed Health Symposium. 10-13 May 2005, Angers, France. Attended symposium and also Seed Health Committee meetings on 9 and 13 May.

ADANDONON, A., AVELING, T.A.S., LABUSCHAGNE, N. & TAMO, M. 2004. Biocontrol agents in combination with *Moringa oleifera* extract for intergrated control of *Sclerotium*-caused cowpea damping-off and stem rot. The BCPC International Congress. Crop Science and Technology 2004, 1 – 3 November, Glasgow, Scotland. POSTER.

KRITZINGER, Q. & AVELING, T.A.S. 2005. Prospects and problems associated with cowpea. 1<sup>st</sup> International Edible Legume Conference in conjunction with 4<sup>th</sup> World Cowpea Congress, 17-21 April 2005, International Convention Centre, Durban, South Africa. PAPER

KOLA, M.E., AVELING, T.A.S., REGNIER, T.J.C. & HALL, A.N. 2004. Mycoflora and polyphenols of Bambara groundnut. 27th International Seed Testing Association Triennial Congress, 17-20 May. Budapest, Hungary. POSTER

KRITZINGER, Q. & AVELING, T.A.S. 2004. Ultrastructural damage and germination reduction in cowpea seeds due to fumonisin B<sub>1</sub>. 27th International Seed Testing Association Triennial Congress, 17-20 May. Budapest, Hungary. POSTER

KRITZINGER, Q., AVELING T.A.S., MARASAS W.F.O., RHEEDER J.P. & VAN DER WESTHUIZEN L. 2004. Occurrence and phytotoxicity of fumonisin B<sub>1</sub> associated with cowpea seed. Annual Meeting of The American Phytopathological Society, 31 July – 4 August, Anaheim, California, United States of America. POSTER

NDUNGURU, J., LEGG, J., AVELING, T., THOMPSON, G & FAUQUET, C. 2004. FTA cards greatly simplify sampling, archiving and recovery of viral and genomic DNA from cassava. The IX International Scientific Meeting of Cassava Biotechnology Network, 8-14<sup>th</sup> March 2004, CIAT, Cali, Colombia. POSTER.

AVELING, T.A.S. 2003. The BCPC International Congress. Crop Science & Technology 2003. 10-12 November 2003. Glasgow, Scotland. ATTENDANCE ONLY.

AVELING, T.A.S., KRITZINGER, Q., PAKELA, Y.P. & REGNIER, T. 2003. Seed pathological aspects of cowpea. 8th International Congress of Plant Pathology, 2-7 February, Christchurch, New Zealand. POSTER.

AVELING, T.A.S. & SNYMAN, H.G. 2003. Effect of sewage sludge on seedling growth of soybean in the greenhouse. Joint International Conference of the South African Association of Botanists and the International Society of Ethnopharmacology, 7-11 January, Pretoria, South Africa. POSTER.

KRITZINGER, Q., AVELING, T.A.S., RHEEDER, J.P. & VAN DER WESTHUIZEN, L. 2003. Fumonisin production in cowpea by *Fusarium proliferatum*. 8<sup>th</sup> International Congress of Plant Pathology, 2-7 February. Christchurch, New Zealand. POSTER.

KRITZINGER, Q., LALL, N. & AVELING, T.A.S. 2003. Antimicrobial activity of cowpea (*Vigna unguiculata* (L.) Walp) leaf extracts. Joint International Conference of the South African Association of



Botanists and the International Society of Ethnopharmacology, 7-11 January, Pretoria, South Africa. POSTER.

ADANDONON, A., AVELING, T.A.S. & HAMMOND, W. 2002. Cowpea collar rot disease in Benin and molecular diversity of *Sclerotium rolfsii*. National Institute of Agricultural Research of Benin Seminar, Cotonou, Benin. 24 September 2002. PAPER.

ADANDONON, A., AVELING, T.A.S., LABUSCHAGNE, N. & AHOHUENDO, B. 2001. Epidemiology and biological control of the causal agent of damping-off and stem rot of cowpea in the Oueme valley, Benin. 2<sup>nd</sup> International Workshop of African Network of Research on Bruchids: Recent Developments in Crop Pre-and Post-harvest Pest Management Practices in Africa, Cotonou, Republic of Benin, 12-17 November 2001. PAPER.

AVELING, T.A.S. 2001. The International Society of Plant Pathology-Sponsored Instructional Technology Symposium 2001. Online <http://www.ispp-itsymposium.org.nz>. Participation in discussions.

AVELING, T.A.S., ADANDONON, A., KRITZINGER, Q., PAKELA, Y.P., SMITH, J.E., & VAN DEN BERG, N. 2001. Research on cowpea diseases in South Africa. 2<sup>nd</sup> International Workshop of African Network of Research on Bruchids: Recent Developments in Crop Pre-and Post-harvest Pest Management Practices in Africa, Cotonou, Republic of Benin, 12-17 November 2001. **Invited guest speaker.**

AVELING, T.A.S., ADANDONON, A., KRITZINGER, Q., PAKELA, Y.P., SMITH, J.E., & VAN DEN BERG, N. 2001. Research developments on cowpea diseases in South Africa. 13<sup>th</sup> Biennial Conference of the Australasian Plant Pathology Society, Cairns, Australia, 24-27 September 2001. PAPER.

AVELING, T.A.S. & POWELL, A.A. 2001. Effect of storage potential and seed coat pigmentation on susceptibility of cowpeas to pre-emergence damping-off. 26<sup>th</sup> Congress of the International Seed Testing Association. Angers, France. 14 - 22 June 2001. PAPER.

KRITZINGER, Q., AVELING, T.A.S. & MARASAS, W.F.O. 2001. Contamination of cowpea (*Vigna unguiculata* (L.) Walp) seed by storage fungi and mycotoxins. British Mycological Society International Symposium on Bioactive Fungal Metabolites - Impact and Exploitation. University of Wales, Swansea, Wales. 22-27 April 2001. PAPER.

KRITZINGER, Q., AVELING, T.A.S. & MARASAS, W.F.O. 2001. Effect of essential plant oils on the growth of storage fungi associated with cowpea seeds. 26<sup>th</sup> Congress of the International Seed Testing Association. Angers, France. 14 - 22 June 2001. POSTER.

AVELING, T.A.S. 2000. Cowpeas in southern Africa: A traveler and plant pathologist's dream Faculty of Agriculture, University of Aberdeen, Scotland. **Invited guest speaker.**

AVELING, T.A.S. 2000. International Microscopy Conference: MICRO 2000. London, UK. 11-13 April 2000. ATTENDANCE ONLY.

AVELING, T.A.S. & POWELL, A.A. 2000. Susceptibility of cowpea cultivars of differing seed coat pigmentations to damping-off. Third World Cowpea Research Conference, International Institute of Tropical Agriculture, Ibadan, Nigeria. 4-7 September 2000. PAPER.

ADANDONON, A., AVELING, T.A.S., LABUSCHAGNE, N. & AHOHUENDO, B. 2000. Damping-off disease of cowpea in the Ouémé valley, Benin. National Institute of Agricultural Research of Benin Seminar, Cotonou, Benin. May 2000. PAPER.

ADANDONON, A., AVELING, T.A.S., LABUSCHAGNE, N. & AHOHUENDO, B. 2000. Damping-off

disease of cowpea in the Ouémé valley, Benin: Epidemiology, causal agent and mycoparasitism. PEDUNE/RENACO International Conjoint Workshop on integrated protection management of cowpea. IITA, Cotonou, Benin. June, 2000. PAPER.

KRITZINGER, Q., AVELING, T.A.S., MARASAS, W.F.O., SHEPHARD, G.S. & LEGGOTT, N.L. 2000. Detection of fumonisin B1 in cowpea seeds. World Cowpea Research Conference III, IITA, Ibadan, Nigeria, 4-7 September 2000. PAPER.

LA GRANGE, N., AVELING, T.A.S. & VENTER, S.L. 2000. A new disease of cowpea caused by *Alternaria cassiae*. World Cowpea Research Conference III, IITA, Ibadan, Nigeria, 4-7 September 2000. POSTER.

VAN DEN BERG, N. & AVELING, T.A.S. 2000. Fungal leaf diseases of cowpea in South Africa. World Cowpea Research Conference III, IITA, Ibadan, Nigeria, 4-7 September 2000. POSTER.

19 PRESENTATIONS between 1992 to 1999

### **6.1.3 Workshops**

Member of Organising Committee of the ISTA (International Seed Testing Association) – Seed Health Workshop, University of Poznan, Poznan, Poland, 4-7 September 2014.

Convenor of the ISTA (International Seed Testing Association) – Seed Health Workshop, University of Pretoria, Pretoria, 7-11 April 2008

Dean of Faculty of Natural and Agricultural Sciences' representative at the Regional Training Programme – Implementation and Coordination of Agricultural Research Training (ICART) in SADC Region (9 ACP SAD 001) Briefing Workshop, Johannesburg, March 14-15th, 2006. This workshop involved obtaining R3.5 million for the University of Pretoria to train SADC post-graduate students in agriculture.

Participation in Consultative Workshop: Policy on Indigenous Food Crops. 10 November 2005. Department of Agriculture. Lesedi Cultural Village, Broederstroom.

Third International Bean Rust Workshop. Game Valley Lodge, Albert Falls, KwaZulu-Natal, South Africa, 4 - 6 March 2002. Participation in Workshop.

International Workshop on Seed Health Testing. National Taiwan University, Taipei, Taiwan, 3-8 December 2001. Participation in Workshop.

Attended the Cowpea workshop held at the Vegetable and Ornamental Plant Institute, Roodeplaat, Pretoria on 12 November 1996.

Attended the Seed Vegetable workshop held at the Vegetable and Ornamental Plant Institute, Roodeplaat, Pretoria on 13 November 1996.

Attended the Leaf Vegetable workshop held at the Vegetable and Ornamental Plant Institute, Roodeplaat, Pretoria on 14 November 1996.

Attended the Farming Systems Research-Extension workshop at the ARC Headquarters, Pretoria, during December 1998

## **7 Teamwork and collaboration with others:**

### **Other researchers (national and international)**

Dr Andries Liebenberg, ARC – Summer Grain Crops Institute, Potchefstroom.  
Ms Lindiwe Mabena and Dr Elize Lubbe at the Plant Protection Research Institute, Roodeplaat,  
Ms Erika van der Heever, and Dr Sonja Venter of Developing Agriculture, Vegetable and  
Ornamental Plant Institute at ARC-Roodeplaat.  
Prof. W.F.O. Marasas of the Medical Research Council, Cape Town  
Mr Cherian Matthews of the Department of Agriculture, Mpumalanga  
Prof. Lise Korsten and Dr Nico Labuschagne of the Department of Microbiology and Plant  
Pathology, University of Pretoria  
Dr Teresa Coutinho and Dr Altus Viljoen of the Department of Microbiology and Plant  
Pathology, Forestry and Agricultural Biotechnology Institute, University of Pretoria

Prof Reyes Blanco, Dpto Producción Vegetal, Edif. Escuela Politécnica Superior, Universidad  
de Almería, Almería, Spain  
Prof Krystyna Tylkowska, Department of Seed Science and Technology, Poznań Agricultural  
University, Przeźmierowo, Poland (NRF SA/Poland collaboration)  
Dr B.B. Singh, a world-reknown researcher on cowpea, at the International Institute of Tropical  
Agriculture (IITA), Nigeria.  
Dr W. Hammond, a world-reknown researcher on cowpea, at the International Institute of  
Tropical Agriculture (IITA), Benin.  
Dr Alison Powell, University of Aberdeen, Scotland.  
Dr J.P. Legg, Natural Resources Institute, Chatham, Kent UK  
Dr C.M. Fauquet, International Laboratory for Tropical Agricultural Biotechnology, Danforth  
Plant Science Centre, St. Louis, USA.  
Dr M. Tamo, International Institute of Tropical Agriculture (IITA), Nigeria  
Prof B.C. Ahohuendo, Department of Crop Production and Protection, Faculty of Agricultural  
Sciences, National University of Benin, Benin.

### **Other research institutions (national and international)**

ARC – Summer Grain Crops Institute, Potchefstroom – anthracnose of beans throughout South  
Africa.  
ARC-Cedara - pathological problems occurring on cowpea and beans in Kwazulu-Natal  
Plant Protection Research Institute, Roodeplaat - research on the bacterial diseases of cowpea  
and their transmission by seed.  
Developing Agriculture, Vegetable Ornamental Plant Institute at ARC-Roodeplaat – planting  
techniques and diseases associated with indigenous food crops grown by resource poor  
farmers.  
Medical Research Council, Cape Town – mycotoxins associated with cowpeas stored by  
resource poor farmers  
Department of Agriculture, Mpumalanga – survey and identification of plant pathological  
problems associated with indigenous food crops  
Veld Products Institute and The Department of Agriculture, University of Botswana in  
Gaborone, Botswana - identification of various cowpea diseases in Botswana.

### **EU FP7 Testa project:**

The Food and Environment Research Agency (FERA), United Kingdom  
Foundation of Agricultural Research, Plant Research International Wageningen, The Netherlands  
The French National Institute for Agricultural Research (INRA), Angers, France  
Università Degli Studi di Torino (UNITO), Torino, Italy.  
Science and Advice for Scottish Agriculture (SASA), Edinburgh, Scotland  
Aarhus Universitet, Slagelse, Denmark  
National Institute of Agricultural Botany (NIAB), Cambridge, United Kingdom  
Stichting Nederlandse Algemene Kwaliteitsdienst Tuinbouw (Naktuinbouw),  
Roelofarendsveen, The Netherlands

Universita Degli Studi di Modena e Reggio Emilia (UNIMORE), Modena, Italy  
Groupe D'etude et De Controle Des Varietes et Des Semences (Geves), Angers, France  
European and Mediterranean Plant Protection Organisation (EPPO), Paris, France  
Videometer A/S, Hørsholm, Denmark

University of Aberdeen, Department of Agriculture. Collaborative seed research project on cowpeas.

Dpto Producción Vegetal, Edif. Escuela Politécnica Superior, Universidad de Almería, Almería, Spain: Collaborative Project on Seed Health testing methods of maize and wheat seed  
Department of Seed Science and Technology, Poznań Agricultural University, Przeźmierowo, Poland (NRF SA/Poland collaboration)

A collaborative project on the viruses of cassava was established with the International Institute of Tropical Agriculture (IITA), Eastern and Southern Africa Regional Center (ESARC), Kampala, Uganda and the International Laboratory for Tropical Agricultural Biotechnology, Danforth Plant Science Centre, St. Louis, USA.

A collaborative project with the International Institute of Tropical Agriculture, Benin and Nigeria was established to study damping-off and stem rot of cowpea caused by *Sclerotium rolfsii*.

Physiological and biochemical characterisation of four South African varieties of bambara groundnut was done in collaboration with the Swedish Biodiversity Centre, Swedish University of Agricultural Sciences, Uppsala, Sweden.

## **Industry**

2009 – 2011. Bayer and BASF seed treatment trials. Focus on efficacy, phytotoxicity, dosage rate, seed germination, seed vigour.

2004 - 2014. Syngenta SA fungicide trials. Seed treatments and foliar applications.

1999 – 2012. Seed health testing of a range of crops such as wheat, maize, onion, cabbage, carrot and pumpkin for various seed companies like Sakata, Klein Karoo, Wildeklawer Boerdery, Monsanto etc.

2001 - Collaborative research project with the Drybean Producer's Organization and Giant's Canning to commercialize and can cowpeas.

1997-1998. In collaboration with Dr Christo Malan of ENERKOM (Pty) LTD, Pretoria. An honours student, Quenton Kritzinger, and I studied the inhibitive effects of oxi-humic and oxi-fulvic acids, a by-product of coal, on bacterial and fungal plant pathogens.

In collaboration with Dr Heidi Snyman of East Rand Water Care Company (ERWAT), Norkem Park. Buks Henning completed his BSc (Hons) and MSc on a project involving the utilization of dried sewage sludge as a fertilizer for the cultivation of various crops.

## **8. Membership in national and international bodies**

<b>ASSOCIATION</b>	<b>INVOLVEMENT</b>	<b>PERIOD</b>
International Society for Plant Pathology Seed Pathology Committee	Chairperson	2013-2018
American Phytopathology Society Seed Pathology Committee	member	2013- 2016
The American Phytopathological Society	member	2001-2014
British Mycological Society	member	1995-2012
The International Society for Seed Science	member	2006-2012
The International Seed Testing Association (ISTA) Disease Committee	member	2001-2007
ISTA Seed Health Committee	Chairperson	2007-2013
ISTA Rules Committee	member	2007-2013
ISTA Executive/Technical Committee	member	2007-2013
ISTA Seed Health Committee	vice-chairperson	2014-2017
ISTA Storage Committee	vice-chairperson	2001-2007
SASPP (South African Society for Plant Pathology)	student member member	1986,1987 1988-2012
Member of the SASPP conference organising committee for Convenor of SASPP Congress 2011		1996, 2002
EMSSA (Electron Microscopy Society of Southern Africa)	student member member	1987 1991,1992
MSSA (Microscopy Society of Southern Africa)	member	1996-2010
SAAB (South African Association of Botanists)	member	1989,1991 1995,1997 2003
SAAGA (South African Avocado Growers' Association)	member	1985-1988
Seedling Growers Association of South Africa	special member	1992-2002
Southern African Association for Farming Systems Research-Extention (SAAFSSR-E)	member	1998 - 2002
Colletotrichum (Anthracnose) Working Group	secretary	1998, 1999
South African New Crops Research Association (SANCRRA).	secretary	1998, 1999
Southern African Society for Plant Pathologists representative at the International Union of		

Biological Sciences (IUBS). 1998, 1999.

## **9. Visits to local and overseas universities or research institutes as guest professor or researcher**

Bioforsk Plant Health and Plant Protection Division, Ås, Norway from May 22 to June 03 2011.

Dpto Producción Vegetal, Edif. Escuela Politécnica Superior, Universidad de Almería, Almería, Spain in August and September 2010.

Department of Seed Science and Technology, Poznań Agricultural University, Przeźmierowo, Poland in June 2008, September 2009.

SNES-GEVES Seed Laboratories, Angers, France in May 2005

Instituto Nacional De InvestigaçãO Agronomica, Maputo, Mocambique in February 2003.

Universidade Eduardo Mondlane, Maputo Mocambique in February 2003.

International Institute of Tropical Agriculture, Cotonou Station, Benin in November 2001.

Awarded a British Commonwealth Research Fellowship for a six month period from October 1999 to March 2000. Research was done on seed health and vigour of cowpea seeds in the Department of Agriculture, University of Aberdeen, Scotland, UK.

Chiredzi Experimental Research Station, Chiredzi, Zimbabwe was visited in February 1999.

The Selian Agricultural Research Institute in Arusha, Tanzania was visited in June 1999.

The Veld Products Institute, Gaborone and The Department of Agriculture, University of Botswana in Gaborone, Botswana were visited in March 1998.

The Cooperative Research Centre for Tropical Plant Pathology, University of Queensland, Brisbane, Australia in September 1997.

The Horticulture and Food research Institute of New Zealand Ltd, Mt Albert Research Centre, Auckland, New Zealand in September 1997.

New Zealand Institute for Crop and Food Research Ltd, Christchurch, New Zealand in September 1997.

The University of Malawi and the Forestry Institute in Liwonde, Malawi were visited in August 1996 by myself and two post-graduate students.

Seed section of Landbrukstilsynet, Fellesbygget, Ås, Norway in 1995.

## **10 COMMUNITY SERVICE OR PROFESSIONAL SKILLS**

### **10.1 Outreach projects**

Lectures on seed pathology of onions were presented to onion farmer groups such as the Brits Onion Producers Organisation.

The project "Pathogens of Indigenous Food Crops" is geared towards the resource poor small-

scale farmer and involves several small-scale farmer communities in Mpumalanga (Kanyamazane and Kangwane) and Venda and in Southern African countries such as Swaziland, Botswana and Zimbabwe. Lectures and information transfer is conferred at various farmer's days organised by the Department of Agriculture, Mpumalanga and by the various Institutes in southern and eastern Africa involved in the project (the Veld Products Institute, Gaborone and The Department of Agriculture, University of Botswana in Gaborone, Botswana; the Chiredzi Experimental Research Station, Chiredzi, Zimbabwe and the Selian Agricultural Research Institute in Arusha, Tanzania).

## 10.2 Professional service performed

Development and presentation of the Seed Technology Course for Seed Analysts for the South African seed industry 2006-2011. The course was presented for the first time 5-9 June 2006, CE at UP.

Course in Seed Science - lecture the Seed Pathology component annually to members of the Seed Industry. 1989-1999. (Margaretha Mes Institute for Seed Research).

Routinely do seed health and vigour tests for South African seed companies.

Interviews for radio and newspapers, for example, Voice of America (Washington, USA);

Deutsche Welle Radio (Cologne, Germany) and; The Guardian newspaper (Lagos, Nigeria).

## 11 AWARDS AND SCIENTIFIC/SCHOLARLY RECOGNITION

### 11.1 Evaluation status as scientist

Professional Natural Scientist in Agricultural Science – certified by the South African Council for Natural Scientific Professions. 2007 – current.

FRD	August 1995	“Y” evaluation
FRD/NRF	June 1999	“C3” evaluation
NRF	December 2004	“C2” evaluation
NRF	December 2009	“C2” evaluation

NRF = National Research Foundation (A is the highest rating)

#### International recognition

British Commonwealth Research Fellowship Award 1999/2000

Convenor of the 1<sup>st</sup> International Edible Legume Conference (IELC 2005) and 4<sup>th</sup> World Cowpea Congress held at the ICC in Durban from 17-21 April 2005.

Vice-Chairperson of the Storage Committee of the International Seed Testing Association (ISTA) for the period 2001-2007.

Member of the Seed Health Committee of ISTA for the period 2001-2007. Nominated Chairperson of the committee from 2007. Will continue as chairperson until 2013. Vice- Chair from 2013-2016.

Member of the Scientific Programme Advisory Committee of the 28<sup>th</sup> ISTA Congress, Iquassu Falls, 5-11 May 2007 and the 29<sup>th</sup> ISTA Congress to be held in Cologne, Germany in June

2010.

Topic Organiser and Chairperson of the session, 'Crop protection in the tropics and subtropics'. XVI International Plant Protection Congress (IPCC) (in association with the BCPC International Congress - Crop Science & Technology 2007) 15 - 18 October 2007, SECC, Glasgow.

Convenor of the ISTA – Seed Health Symposium in South Africa in 14-18 April 2008.  
Convenor of the ISTA – Seed Health Workshop, Pretoria, 7-11 April 2008

Convenor of the Southern Africa Society for Plant Pathology Congress, Kruger Park, January 2011.

Represented ISTA as an observer at the CPM meeting of the IPPC held at FAO in Rome in March 2010.

Chairperson of the International Society for Plant Pathology Seed Pathology Committee 2013-2018

Member of the American Phytopathology Society Seed Pathology Committee 2013-2016

#### **Reviewer and editorial boards**

Reviewer 1997-2000, Associate editor 2005, 2006, Proceedings of the Microscopy Society of Southern Africa

Reviewer 1996-2000, 2005, 2011, South African Journal of Botany

Reviewer 2000, Seed Science and Technology

Reviewer 1998 – 2002, African Plant Protection

Associate Editor 2003 – 2010, 2014, African Plant Protection

Reviewer 2005, Associate Editor 2006-2014, Journal of Agricultural Science, Cambridge

Chair: NRF Thuthuka Applications, Microbiology Panel Meeting, 07 February 2012.

Reviewer on the South African Research Chairs Initiative (SARChI) Phase 2 NRF Panel 02 August 2012

Reviewer: Draft specification for ISPM: International movement of grain (2008-007), Directorate: Plant Health, Division: International Standards, Pretoria 05 July 2012.