

# Curriculum Vitae

**Name:** Jens B. Aune

**Present position:** Professor (agroecology/agricultural development), Department for International Environment and Development Studies, Norwegian University of Life Sciences, Ås, Norway

**Personal data:** Norwegian citizen. Born 1958

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**Major research interests:** Soil Fertility Management, Climate Smart Agriculture, Conservation Agriculture, sustainable intensification, integrated farming and bioenergy

## Education:

2001 Course in System analyses, SLU, Sweden (4 weeks)

1991 Course in university pedagogics, NLH

1990 Dr. scient., Agricultural University of Norway. Crop Science

1984 Cand. agric., Agricultural University of Norway. Crop science

## Employment record:

2011- Professor, Noragric, UMB and NMBU

1999- Associate professor/researcher, Noragric, NLH/UMB (agroecology), Noragric, NLH

1996- 1999 Associate professor (agroecology), Noragric, NLH

1991-1995: Researcher, Centre for Sustainable Development, NLH

1990-1991: Researcher (cereal diseases), Norwegian Plant Protection Institute

1989-1990: Research Scholar, Department of Crop Science, NLH

1987-1988: Research Assistant, Norwegian Church Aid/Norwegian Research Council, Mali

1985-1986: Research Scholar, Department of Crop Science, NLH

1984-1985: Consultant, Hveem Research Station, Potato Seed Production

I was for 6 months in 1993 guest researcher at the Ohio State University, USA

## Countries worked in:

Mali, Niger, Chad, Mauritania, Senegal, Madagascar, Ethiopia, Tanzania, Kenya, Malawi, Zambia, India, USA, France, Sweden and Norway

**Languages:** Norwegian - mother tongue

English - fluent

French – fluent/good

German - poor

**Referee to the following journals:** Agricultural, Ecosystems and Environment, Field Crops Research, Soil & Tillage Research, Experimental Agriculture, Ecological Economics and World Development

**Refereed publications (short list):**

- Aune, J.B. 1999. LFA and PRA - mutually exclusive or complementary tools for project planning? *Development in Practice* 10: 687-690
- Aune, J.B. 2012. Conventional, organic and conservation agriculture: production and environmental impact. *Sustainable Agriculture Reviews* 8: 149-165.
- Aune, J.B. 2014. Experiences on Conservation Agriculture (CA) in Zambia, Malawi, and Ethiopia: Effects on yield, soil properties, labor use, profitability, and adoption. In: *Soil management of smallholder agriculture*, (R. Lal and B.A. Steward eds.), CRC Press, pp. 223-236.
- Aune, J.B. and A. Bationo 2008. Agricultural intensification in the Sahel – The ladder approach. *Agricultural Systems* 98: 119-125.
- Aune, J.B. and A. Massawe 1998. Effects of soil management on economic return and indicators of soil degradation in Tanzania: a modelling approach. *Advances in GeoEcology* 31:37-43.
- Aune J.B. and R. Lal 1997. Agricultural productivity in the tropics and critical limits of properties of oxisols, ultisols and alfisols. *Tropical Agriculture* 74:96-103.
- Aune, J.B., M.T. Bussa, F.G. Asfaw, and A.A. Ayele 2001. The ox-ploughing system in Ethiopia: can it be sustained. *Outlook on Agriculture* 30: 275-280.
- Aune, J.B. A.T. Alemu and K. Gautam 2005. Carbon sequestration in rural communities: Is it worth the effort. *Journal of Sustainable Forestry* 21: 85-99.
- Aune J.B., M. Doumbia, A. Berthe 2007. Microfertilizing sorghum and pearl millet in Mali 2007. *Outlook on Agriculture* 36: 199-203.
- Aune, J.B. and A. Ousman 2011. Effect of seed priming and microdosing of fertilizer on sorghum and pearl millet in Western Sudan. *Experimental Agriculture* 47: 419-430.
- Aune, J.B., C.O. Traoré and S. Mamadou 2012. Low cost technologies for improved productivity of dryland farming in Mali. *Outlook on Agriculture* 41:103-108.
- Aune, J.B. and A.Coulibaly 2014. Microdosing of mineral fertilizer and conservation agriculture for sustainable agricultural intensification in Sub-Saharan Africa. In: *Sustainable Intensification to Advance Food Security and Enhance Climate Resilience in Africa* (R.Lal eds.). Springer International Publishing, pp. 223-234.
- Balesh, T., F. Zapata, J.B. Aune 2005. Evaluation of mustard meal as organic fertiliser on teff(*Eragrostis tef* (Zucc) Trotter) under field and greenhouse conditions. *Nutrient Cycling in Agroecosystems* 73: 49-57.
- Benjaminsen, T.A., J.B. Aune, D. Sidibé 2010. A critical political ecology of cotton and soil fertility in Mali. *Geoforum* 41: 647-656.
- Brakas, S.G. and J.B. Aune 2011. Biomass and carbon accumulation in land use systems of Claveria, the Philippines. In: *Carbon Sequestration in Agroforestry: Processes, Policy, and Prospects* (eds. B. M. Kumar and P. K. R. Nair). Springer Science+Business Media B.V., p.p. 163-175.
- Feyisa, T.H. and J.B. Aune 2003. Khat expansion in the Ethiopian Highlands. *Mountain Research and Development* 23: 186-190.

- Grimsby, L.K., J.B. Aune and F. Johnsen 2012. Human energy requirements in Jatropha oil production for rural electrification in Tanzania. *Energy for Sustainable Development* 16:297-302.
- Grimsby, L.K., K. Fjörtoft, and J.B. Aune 2013. Nitrogen mineralization and energy from anaerobic digestion of jatropha press cake. *Energy for Sustainable Development* 17:35-39
- Habtegebrial K., B.R. Singh, J.B. Aune 2007. Wheat response to N<sub>2</sub> fixed by faba bean (*Vicia faba* L.) as affected by sulfur fertilization and rhizobial inoculation in semi-arid Northern Ethiopia. *Journal of Plant Nutrition and Soil Science* 170: 412-418.
- Kaihura, F.B., I. Kullaya, M. Kilasara, J.B. Aune, B.R. Singh and R. Lal 1999. Soil quality effects of accelerated erosion and management systems in three eco-regions of Tanzania. *Soil and Tillage Research* 53: 59 – 70.
- Kullaya, I.K., Kilasara, M., J.B. Aune 1998. The potential of marajea (*Crotalaria ochroleuca*) as green manure in maize production in the Kilimanjaro region of Tanzania. *Soil Use and Management* 14: 117-118.
- Mwambazi, T.N., B. Mwakalombe, J.B. Aune and T.A. Breland 1998. Turnover of green manures and effects on bean in Northern Zambia. *Advances in Geoecology* 31:1247-1254.
- Nakakaawa, C.A., Aune J., Vedeld P. 2010. Changes in carbon stocks and tree diversity in agro-ecosystems in south western Uganda: what role for carbon sequestration payments? *New Forests* 40: 19-44.
- Nakakaawa C.A., Vedeld P.O., Aune, J.B. 2011. Spatial and temporal land use and carbon stock changes in Uganda: implications for a future REDD strategy. *Mitigation and Adaption Strategies for Global Change* 16:25-62.
- Ngwira, A.R., J.B. Aune, S. Mkwinda, 2012. On-farm evaluation of yield and economic benefit of short term maize legume intercropping systems under conservation agriculture in Malawi. *Field Crop Research* 132: 149-157.
- Ngwira A, F. Johnsen and J.B. Aune 2014. Adoption and extent of conservation agriculture practices among smallholder farmers in Malawi. *Journal of Soil and Water Conservation* 69:107-119.
- Ngwira, A., J.B. Aune and C. Thierfelder 2014. On-farm evaluation of the effect of the principles and components of conservation agriculture on maize yield and weed biomass in Malawi. *Experimental Agriculture* 50:591-610.
- Ngwira, A.R., Aune, J.B. and C. Thierfelder 2014. DSSAT modelling of Conservation Agriculture maize response to climate change in Malawi. *Soil & Tillage Research* 143:85-94.
- Nyanga, P. H., Johnsen, F.H., Aune, J.B., Kalinda T. 2011. Smallholder Farmers' Perceptions of Climate Change and Conservation Agriculture: Evidence from Zambia. *Journal of Sustainable Development*, 4: 73-85
- Ousman A. and J.B. Aune 2011. Effects of seed priming and microdosing of fertilizer on groundnut, sesame and cowpea in Western Sudan. *Experimental Agriculture*, 47: 431-443.
- Schreinemacher P., T. Berger, J.B. Aune 2007. Simulating soil fertility and poverty dynamics in Uganda. A bio-economic multi-agent systems approach. *Ecological Economics* 64: 387-401.
- Shiferaw, B., S. Holden and J. Aune 2000. Population pressure and land degradation in the Ethiopian highlands: A bio-economic model with endogenous soil degradation. In: *Economic policy and sustainable land use. Recent advances in quantitative analyses for developing countries* (N. Heerink, H. Keulen and M. Kuipers eds.) Springer Verlag, Heidelberg, Germany, pp. 73-92.

- Sime, G. and J.B. Aune 2014. Maize response to fertilizer dosing at three sites in the Central Rift Valley of Ethiopia. *Agronomy* 4: 436-451. <http://www.mdpi.com/2073-4395/4/3/436>
- Sime, F., J.B. Aune and H. Mohammed 2014. Agronomic and economic benefits of tillage and water conservation methods in maize, semi-arid Central Rift Valley of Ethiopia. Submitted paper.
- Temu, A.E.M. and J.B. Aune 1995. Effect of green manuring and rotation on maize yield in the Southern Highlands of Tanzania. *Norwegian Journal of Agricultural Sciences. Supplement* No. 21, 93-98 pp.
- Tulema, B., F. Zapata, and J. Aune and B. Sitaula 2005. N fertilisation, soil type and cultivars effects on N use efficiency in tef (*Eragrostis tef* (Zucc.) Trotter). *Nutrient Cycling in Agroecosystems* 71:203-211.
- Tulema B, J.B. Aune, T.A. Breland 2007. Availability of organic nutrient resources and their effects on yield and nutrient recovery of tef (*Eragrostis tef* (Zucc.) Trotter) and on soil properties. *Journal of Plant Nutrition and Soil Science* 170: 543-550.
- Tulema B., J.B. Aune, F. Johnsen and B. Vanlauwe 2008. The prospects of reduced tillage in tef (*Eragrostis tef* Zucca) in Gare Arera, West Shawa Zone of Oromiya, Ethiopia. *Soil & Tillage Research* 99: 58-65.
- Umar, B.W., Aune J.B., Johnsen F. and Lungu O.I. Options for improving smallholder agriculture in Zambia. *Journal of Agricultural Science*, 3: 50-62.
- Umar, B.B., J.B. Aune, F.H. Johnsen and O.I. Lungu 2012. Are smallholder in Zambia economists. A dual-analysis of farmers' expenditures in conservation agriculture systems. *Journal of Sustainable Agriculture* 38: 908-928.
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