

Curriculum Vitae

of

Paul Craig Kupke

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MEMBERSHIP:

- Affiliate to the National Centre of Engineering in Agriculture
University of Southern Queensland, Toowoomba
- Member of the American Society of Agricultural Engineers

TERTIARY EDUCATION:

- **Bachelor of Agricultural Engineering (First Class Honours)**
University of Southern Queensland
Toowoomba, QLD 4350
- **University of Nebraska (Undergraduate)**
Faculty of Agricultural and Biological Systems Engineering
Lincoln, Nebraska, USA
- **University of Adelaide (Undergraduate)**
Faculty of Engineering
Adelaide, SA 5005

EXPERIENCE:

Position: Design and Test Engineer

Company: Biosystems Engineering Pty. Ltd (ABN: 78 219 454 938)

March 2004 – Current

- **Machinery Testing services in the Agricultural Industry, specialising in the following areas:**
 - Component specification analysis
 - Accident analysis
 - Structural failure
 - System failure
 - Data acquisition (Stress, Strain, Pressure, Velocity and Temperature)

Reports presented with the following optional aids:

- 3D computer solid modelling
 - 3D computer animation
 - Solid scale modelling
 - Digital video
 - Digital photography
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- **Consulting Engineer to the Wagga Wagga City Council**
 - Prepare a scoping study to investigate effective methods for removing manure waste from the Wagga Wagga Livestock Marketing Centre.
 - Based on the scoping study, conduct trials to measure the effectiveness of washing methods on the Wagga Wagga Livestock Marketing Centre.
 - **Consulting Engineer to the National Centre for Engineering in Agriculture (NCEA).**
 - Design, manufacture and testing of a Hardwood Chipper for Dr Harry Harris (University of Southern Queensland and RIRDC).

- Design, develop and manufacture a fully automatic applicator to disperse 'Nalco' 'WaterSavr' product to limit surface evaporation in water.
- **Consulting Engineer to Bourgault Australia Pty Ltd**
 - Design, manufacture and testing of a Hydraulic Tine for Bourgault tillage range.
 - Design and test hydraulic system to operate Hydraulic Tine.
- **Consulting Engineer to Croplands Pty Ltd**
 - Design, model and manufacture Adjustable width Axles for Spray Coup Sprayer.
- **Consulting Engineer to Fieldquip Pty Ltd**
 - Design and model Three Point Linkage Bucket.
 - Design and model Three Point Linkage Grader Blade.
 - Design and model Three Point Linkage Slasher.
- **Consulting Engineer to the Department of Primary Industries, Toowoomba and Warwick**
 - Design, develop and manufacture a CO₂ measurement chamber.
 - Design, develop and manufacture a Hand Held plot harvester
- **Consulting Engineer to 'Saltbush Systems' Pty Ltd.**
 - Design, develop and test a one pass Saltbush planting machine.
 - Design, develop and test specialised machinery for on-farm saltbush nursery.
- **Consulting Engineer to 'Kenro Metal Services', Toowoomba**
 - 3D modelling and supply of manufacturing plans.
 - Structural analysis of general components.
- **Consulting Engineer to 'Namoi Valley Implements', Narrabri**
 - Supply of planter components.
 - Design, develop and test a parallelogram planting tine.
 - Supply manufacturing plans for the 'Bio-Blade' Disc Planter.
 - Supply graphical database for the 'Bio-Blade' Disc Planter.
 - Design a seeding boot for the 'Bio-Blade' Disc Planter.
 - Design and develop a precision disc planting unit.
 - Design and develop a patented parallelogram/breakout precision planting tine.
- **Contract writing for the Kondinin Group's 'Farming Ahead' magazine, Perth**
 - Machinery evaluations and previews.
- **Consulting Engineer to 'Bourgault Australia', Perth**
 - Design, develop and test a hydraulic tine
 - Supply Hydraulic tine components
- **Consulting Engineer to 'Croplands Australia', Toowoomba**
 - Modify and Develop a Controlled Traffic Axle kit

Position: Labourer (Part Time)

Company: Skilled Engineering

January 2001-2003

- Grain inspector for AQIS
- Cleaner, Bunker operator, and general labourer for AusBulk Ltd.
- Press operator for Henderson Automotive Ltd.

- Other general labour

Position: Assistant (Part Time)

Company: Family Property

January 1990 – 1999

- Assist in the design, construction and maintenance of machinery required for grazing operations.
- General animal husbandry duties involving cattle, pork, sheep and fat lamb production.
- Hay production and milling of feedlot rations for sheep and pigs.
- Assist in the design, construction of field bins.
- Operator/assistant of portable sheep plunge dipping service.
- Assist in the foundations, concrete and construction of a 80' x 60' shed

PUBLICATIONS:

Kupke P., "Development of a folding mechanism for an 18m Scaribar" Honours Thesis Report 2003.

Sulman., R & Kupke, P. "Scoping Study of Hydraulic Yard Cleaning Methods" National Centre for Engineering in Agriculture, USQ, Toowoomba, 2006.

KONDININ GROUP MACHINERY REPORTS:

- "Front wheel assist tractors" Evaluation report – April 2007
- "4WD and tracked tractors prove reliable but thirsty: owners" Evaluation report – February 2008, p18
- "Owners score reliability high" Evaluation report – December 2007, p12
- "Simplicity wins favour with Jetstream fans" Evaluation report – September 2007
- "John Deere 50 series STS" Evaluation report – September 2007, p26
- "Reliability and power top the bill on owner scorecards" Evaluation report – July 2007, p33
- "Owners applaud reliability but rate gearshift as rough" Evaluation report – May 2007
- "Reliability nudges out crop intake ability in owner survey" Evaluation report – April 2007, p30
- "John Deere 4720-4920 self propelled boomspray units" Evaluation report – February 2007, p10
- "New Holland TR88-98 series harvesters" Evaluation report – January 2007, p12
- "Owners cut through the chaff on draper fronts" Evaluation report – January 2007, p15
- "Case IH-Steiger 9300 series tractors" Evaluation report – December 2006, p10
- "John Deere 60 STS series harvesters" Evaluation report – November 2006, p28
- "Hardi Commander boom spray unit" Evaluation report – October 2006, p10
- "Case IH 2388 series harvesters" Evaluation report – September 2006, p9
- "Case IH 8900 series tractors" Evaluation report – August 2006, p14
- "John Deere 4710 self-propelled spray units" Evaluation report – July 2006, p26
- "Hardi Navigator boomspray unit" Evaluation report – June 2006, p10
- "Transmission excels in 70 series tractor" Evaluation report – May 2006, p16
- "Navigator boom spray proves easy and reliable" Evaluation report – April 2006, p7

KONDININ GROUP GPS REPORTS:

- "Trimble Ez-Guide Plus Ez-Steer" Evaluation report – March 2008, p26
- "Rinex GPS Units" Evaluation report – January 2008, p12
- "Farmscan GPS units" Evaluation report – October 2007, p23
- "Trimble GPS units" Evaluation report – August 2007, p13
- "GPS Ag Autofarm units" Evaluation report – June 2007, p13
- "KEE Zynx GPS Units" Evaluation report – March 2007, p9
- "Trimble Ez-Guide Plus" Evaluation report – December 2006, p20