

# Tandem Deere Tracked Tractors Provide Awesome Power

By David Lawler

Bill and Judy Zell, together with their sons Gavin and Wayne, farm 47,000 acres of wheat, barley, and chickpeas near Collarenebri, New South Wales, Australia.

Like all farmers, the Zells work hard to get their crops sown as quickly as possible once conditions are right. They run the biggest equipment they can 24 hrs. a day to get their crops into the ground.

However, the Zells farm in a remote area where they face a shortage of skilled operators. Adding more tractors and seeders into their operation would require more drivers. To solve the problem, Gavin developed a system to join a pair of Deere 9400T tractors so they work as a single unit. They tested the tandem tractor hookup during seeding in July, 2010. Satisfied with the results, the Zells then built a 212-ft. wide air seeder to match the capacity of the tandem tractors.

Joining the tractors involved developing a heavy-duty hitch that mounts on the drawbar of the front tractor. It's designed to move up and down to accommodate movement between the coupled tractors. The hitch



To increase planting capacity on their 47,000-acre operation, the Zells joined two Deere 9400T tractors to work as a single unit.

incorporates a pair of hydraulic cylinders and accumulators that provide dampening of movement. The hitch can be locked hydraulically when the front tractor is used for other tasks as a single unit.

A steel frame mounts permanently under the rear tractor, running back to the drawbar hitch and bolted to the underside of the tractor frame with plate steel brackets. A large ball joint on front of the rear tractor connects the two tractors, with the frame providing a direct link between the hitches of both tractors.

A series of hydraulic lines run back along the side of the rear tractor. These lines plug into the hydraulic outlets of the front tractor, allowing the hydraulic systems on both tractors to be used to power the giant air-seeder. Each tractor powers one of the two seed carts attached to the seeder.

A second set of CommandARM controls are installed in the cab of the front tractor and these controls are linked by electric cables to the corresponding controls on the rear tractor. A push-pull cable connects to the transmission of the rear tractor to provide gear changes.

The driver sits in the front tractor and is able to perform all operations of both tractors – except switching the rear tractor's lights on or off. Only the front tractor is steered – the rear tractor follows its lead. A GPS and auto-steering system on the front tractor is linked to the air-seeder steering system and this ensures that the air-seeder accurately follows the tractor, including turning between passes,



Hitch system between tractors uses a pair of hydraulic cylinders and accumulators to dampen up and down movement. A hitch frame runs back to the drawbar on the rear tractor. It's braced to the rear tractor frame with steel plates.

and increases the maneuverability of the rig.

The Deere tractors are run at 1,900 rpm's and burn 13 gal. of diesel each hour – a total of 26 gal. per hour for the combined unit. The tandem tractors and air-seeder work at 5.6 mph per hour, with the rig covering 2.5 acres each minute. Over a typical 18-hr. day of seeding the big rig is able to seed about 2,500 acres.

The tandem tractors and air seeder worked

flawlessly during the 2011 planting season, seeding about half of the Zell's crops. The rest of their crops were planted with two 80-ft. air seeders and a 60-ft. unit, all working around the clock.

Contact: FARM SHOW Followup, Gavin Zell, "Taroo", Collarenebri, New South Wales 2833, Australia.

## Vol. 36, No. 1, 2012

Harold M. Johnson  
Founder

### Editor/Publisher

Mark Newhall ([mark@farmshow.com](mailto:mark@farmshow.com))

### Senior Editor

Bill Gergen ([bill@farmshow.com](mailto:bill@farmshow.com))

### Contributing Editors

Jim Ruen ([edgecom@acegroup.ca](mailto:edgecom@acegroup.ca))

C.F. Marley (ph 217 563-2588)

Dee Goerge ([dee\\_goerge@yahoo.com](mailto:dee_goerge@yahoo.com))

Lorn Manthey ([redoakridge@mac.com](mailto:redoakridge@mac.com))

### Office Manager

Anne Lash ([anne@farmshow.com](mailto:anne@farmshow.com))

### Circulation

Peg Nagel, Shelly Mende, Mary Lunde,  
Sue Rommes, Krista Wetschka

**FARM SHOW** (ISSN #01634518) is published 7 times per year (bimonthly plus one special "Best of FARM SHOW" issue published in December) for \$23.95 per year (\$27.95 in Canada) by Farm Show Publishing, Inc., P.O. Box 1029, 20088 Kenwood Trail, Lakeville, Minn. 55044. Periodicals postage paid at Lakeville, Minn., and Madelia, Minn. POSTMASTER: Send address changes to FARM SHOW, P.O. Box 1029, Lakeville, Minn. 55044 (ph 952 469-5572; fax 952 469-5575; email: [circulation@farmshow.com](mailto:circulation@farmshow.com); website: [www.farmshow.com](http://www.farmshow.com)). Single copy price is \$5.95 (\$7.50 in Canada). Publication No. 469490.

Publications Mail Agreement No. 40032660  
Return Undeliverable Canadian Addresses To:  
Dycom Mail Svcs.  
495 Berry St.  
Winnipeg, MB R3J 1N6  
Email: [circulation@farmshow.com](mailto:circulation@farmshow.com)

**FARM SHOW** does not accept advertising and focuses exclusively on new products and product evaluations.

**FARM SHOW** does not charge for new products or services featured in the magazine. Anyone with a new product or service of interest to farmers - whether inventor, manufacturer, marketer, distributor or whatever - is invited to contact FARM SHOW regarding possible publication.

**FARM SHOW Publishing, Inc.**, has not tested or used any of the ideas or products described in its publications. FARM SHOW Publishing, Inc., does not promote, recommend or endorse the use of the ideas or products described in its publications. FARM SHOW Publishing, Inc., disclaims any and all responsibilities and liabilities in the event of personal injury, death, property damage or losses as the result of the use or application of any such ideas or products. Anyone applying or using such ideas or products does so at his, her or their own risk.

Printed in U.S.A. All rights reserved, including the right of reproduction, in whole or in part, without written permission.

Jan.-Feb., 2012

## Rare Albino Raccoon Triplets Captured

"In our 27-year history we've rarely even seen an albino raccoon, much less three in one litter," says Brad Gates, owner of Gates' Wildlife Control in Toronto, which is considered the raccoon capital of North America. Gates and his employees have captured thousands of the bandit-faced pests over the years.

Gates didn't know exactly what to expect after he received a call last May about a "white animal" in a garage. When the wildlife control specialists arrived, they discovered three albino raccoons in the home's attic.

Albino raccoons are rare – one in 500,000 – but the odds of finding three in one litter is one in 10 million.

According to Toronto policy, the raccoons were placed on the roof of the home so that when the mother raccoon returned she could find and relocate them. There are two reasons: to prevent the spread of rabies from one area to another and the city's policy to treat animals humanely by keeping families together so they can survive.

The city attracts raccoons because it has a recycling program for food scraps. The

raccoons have learned to open the green cans that are kept outside to be hauled to a compost pile. For shelter, raccoons are good at finding roof vents and structural flaws in buildings to gain access – mostly in attics and walls.

Gates has noticed that raccoons often have their litters in the attic over a bedroom where it's quiet during the day, and the mother raccoon can sleep. She leaves at night to get food, and the cries of the hungry babies let the homeowner know there have uninvited guests.

Animal control companies such as Gates' business remove the animals and block the entrance holes they find. Often neighbors also hire them to look for and close up access holes in their homes to avoid the evicted raccoon family from moving in.

Contact: FARM SHOW Followup, AAA Gates' Wildlife



Albino raccoons are rare, but three in one litter is even rarer, says Brad Gates, owner of Gates' Wildlife Control.

Control, 445 Midwest Rd., Unit 10, Scarborough, Ont. M1P 4Y9 Canada (ph 877 750-9453; [www.gateswildlifecontrol.com](http://www.gateswildlifecontrol.com)).