

CHAPTER 1

The Australian Cotton Industry Naturally World's Best



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Cotton grower from Wee Waa, Matt Norrie is one of the 1,500 family farmers that make up the Australian Cotton Industry

Cotton is a natural fibre grown on a plant. It's produced so that the fibre can be made into products that consumers use every day including jeans, t-shirts, sheets and towels. Fibre from the cotton plant is made into yarn and fabric, the seed is fed to cattle and crushed for oil and the rest of the plant can be made into mulch.

Cotton makes up just over a third of all the fibre sold globally, and is the world's favourite natural fibre.

Produced commercially in Australia since the 1960s, cotton has developed into one of our leading agricultural industries.

Cotton is grown under the Australian sun on about 1,500 farms from Emerald in the north of Queensland to Griffith in southern NSW. Most cotton farms grow an average of 467 hectares of cotton, are owned and operated by Australian families and employ approximately eight staff.

Cotton is grown on some of the deepest and richest soils in Australia that have a unique capacity for storing water by swelling and shrinking in harmony with the natural wetting and drying cycles of their regions. Likewise, the agricultural community's livelihood swells and shrinks with droughts and floods - and Australian cotton farmers have adapted to survive in what can be an unforgiving environment when the rains don't come.

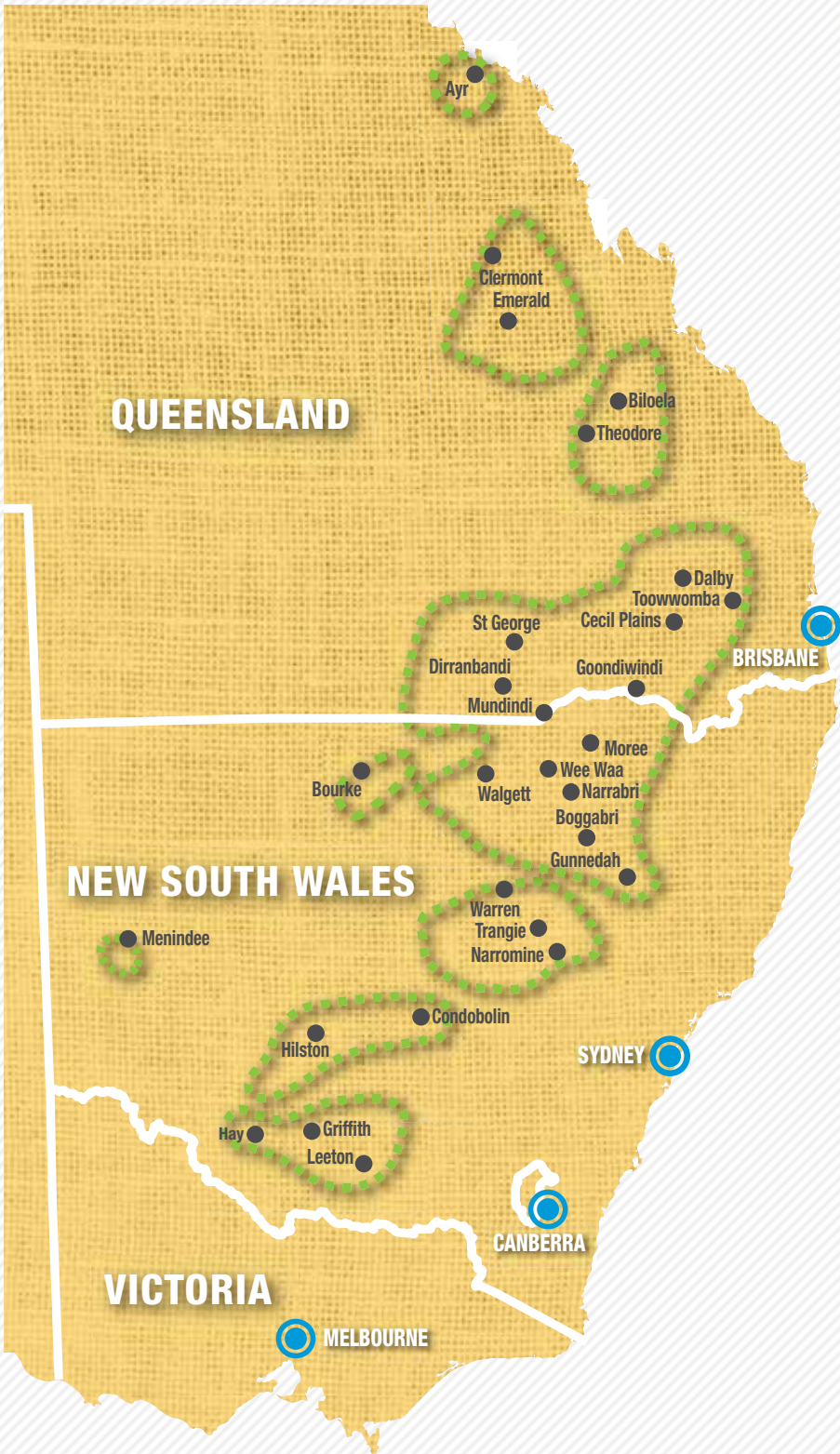
They have learned to make more from less - producing the highest yielding, highest quality, most environmentally-friendly cotton in the world. These farming communities are working with

leading manufacturers and premium brands to differentiate their product, placing it into the hands of consumers all over the globe.

The world wants our cotton. Although a relatively small producer on the world scale, Australia is the world's fourth largest cotton exporter, producing sustainable, high quality, low contaminant cottons that attract a premium on the world market. Continuous improvements in Australian cotton quality, particularly staple length and strength, means our raw product is increasingly being used for the production of premium quality fabric.

Over 150 regional communities from Emerald and Theodore in Central Queensland to Hillston and Hay in Southern NSW are reliant on cotton production, which underpins regional prosperity and social infrastructure in these communities. In a normal year the Australian cotton industry directly employs over 10,000 Australians and supports 4,000 businesses that rely on cotton.

Australian cotton farmers participate in a voluntary environmental program called Best Management Practices (myBMP), which ensures cotton is produced and manufactured with the highest environmental standards from the farm and beyond. Our innovative farm practices have seen water use efficiency double in the last 25 years, and Australian cotton growers deliver two to three times more cotton per land area than the global average.



QUEENSLAND

NEW SOUTH WALES

VICTORIA



● TOWNS IN COTTON REGIONS
○ COTTON REGION

WHERE IS COTTON GROWN?

Cotton is grown in around 75 countries of the world, between 45 degrees North and 32 degrees South.

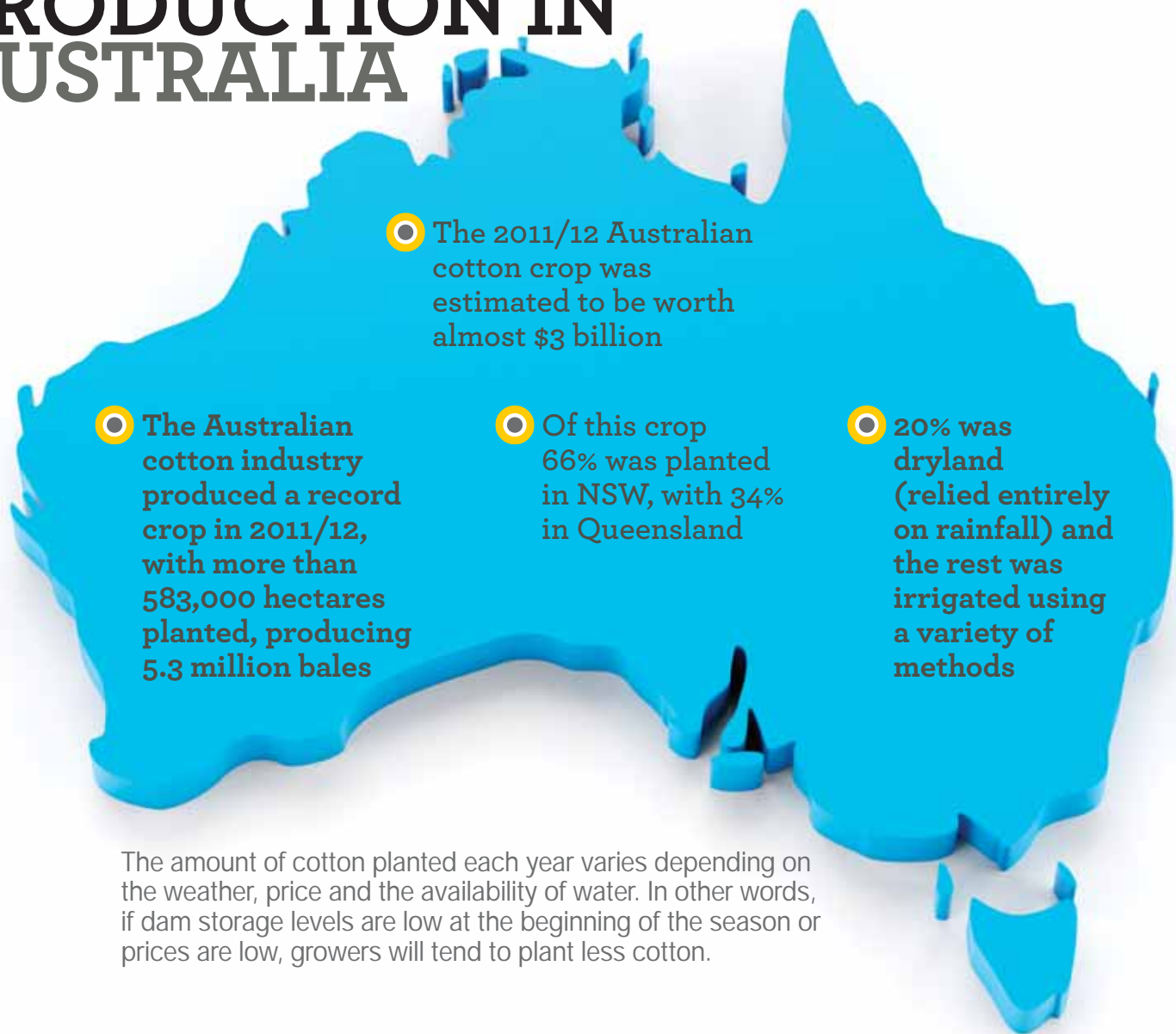
The world's biggest producers include China, USA, India, Pakistan and Brazil. Australia is a relatively minor producer on the world scale but it is the fourth largest exporter growing between two and five million bales (227 kg per bale) each year, depending on price and the availability of water.

In Australia cotton is grown in southern, central and north-western NSW and central and southern Queensland.

The major production area in NSW stretches south from the Macintyre River on the Queensland border and covers the Gwydir, Namoi and Macquarie valleys. In NSW cotton is also grown along the Barwon and Darling rivers in the west and the Lachlan and Murrumbidgee rivers in the south. In Queensland, cotton is grown mostly in the south in the Darling Downs, St George, Dirranbandi and Macintyre Valley regions. The remainder is grown near Emerald, Theodore and Biloela in Central Queensland. There are small plantings in the Burdekin region of Queensland and the Ord River area in Western Australia.



COTTON PRODUCTION IN AUSTRALIA



COTTON YIELDS



See if you can guess which is the dryland crop and which is the irrigated crop?

Highest Yields Ever Recorded at “Cardale”, near Narrabri, NSW

Harvesting Cotton With Four Metre Spacings On “Jedburgh”, Warren NSW
photo by Andrea Murdoch

YIELD REFERS TO THE AMOUNT OF COTTON THAT IS PRODUCED IN A GIVEN AREA OF LAND, AND IN AUSTRALIA IS REPORTED AS BALES PER HECTARE.

While China and India may lead the world in total production of cotton, Australia produces more than double the cotton per hectare of both these countries. In fact Australia has produced the world’s highest cotton yields every year for over 20 years. Efficiency gains means Australian cotton growers can now produce the same amount of cotton on fewer hectares than ever before.

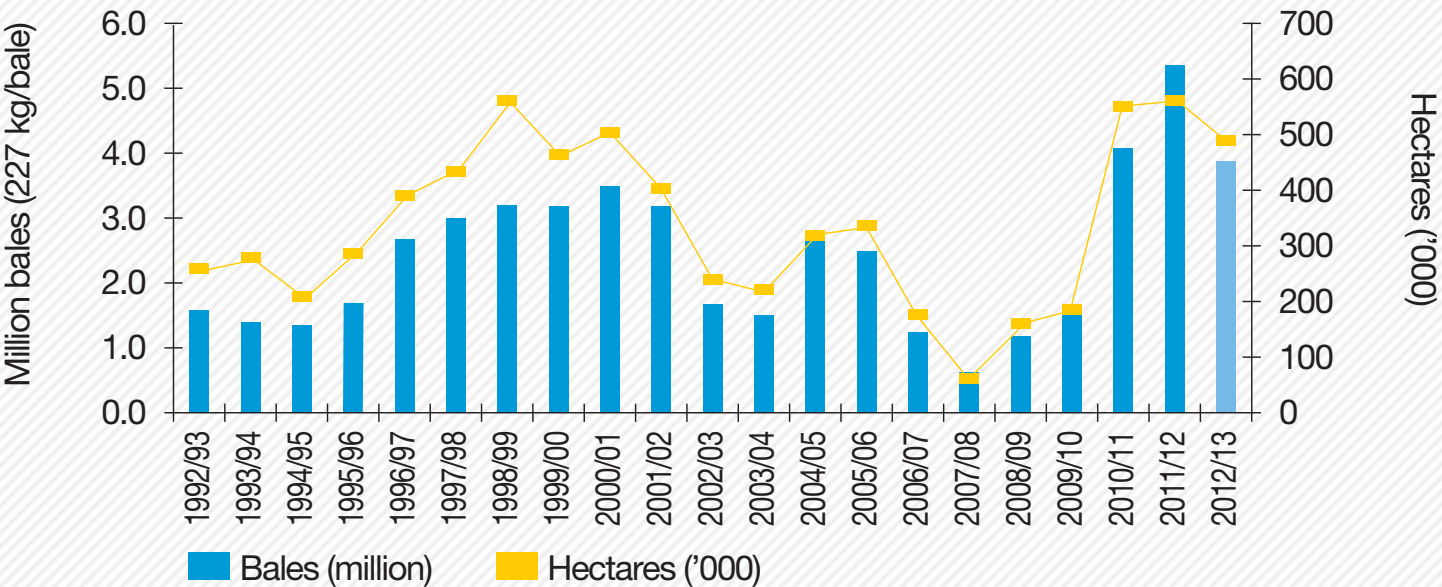
So why do some countries produce higher yields per hectare than others? There are a combination of factors including:

- variety selection
- water availability
- crop management, including nutrition and pest control

Plant breeding has been responsible for at least 50% of the yield increases seen in Australia, with 50% attributed to better water management.

In Australia, irrigated cotton produces much higher average yields than dryland cotton. For example average yield in 2011/12 under irrigated conditions was 9.2 bales/ha compared to 2.8 bales/ha under rain fed conditions.

20 YEAR HISTORY OF CROP PRODUCTION



EXPORT DOLLARS

Australia is the fourth largest exporter of cotton in the world (behind USA, India and Uzbekistan) and is an important export industry for Australia’s economy.

In an average production year, the Australian cotton industry generates in excess of \$1 billion in export revenue, is one of Australia’s largest rural export earners and helps underpin the viability of over 100 rural communities in NSW and Queensland.

DESTINATIONS FOR AUSTRALIAN COTTON

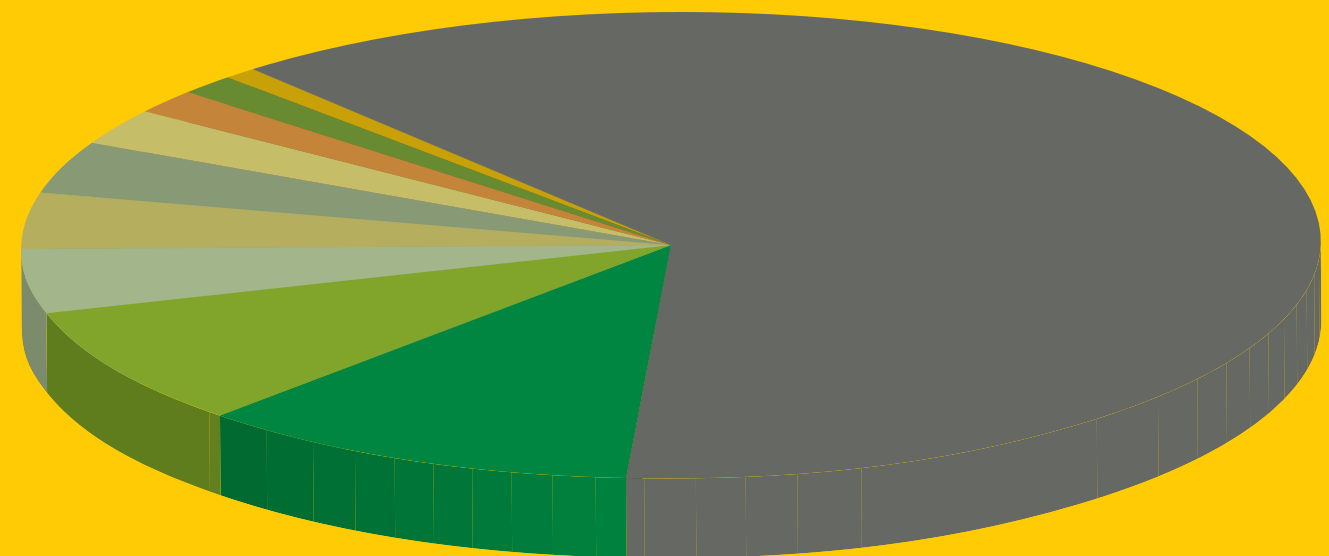
Less than 1% of the cotton grown in Australia is spun by local spinning mills – over 99% is sold and exported, largely to Asia.

China is Australia’s most important cotton customer, consuming approximately 70% of the crop. Other important markets for Australian cotton are Indonesia, Thailand, South Korea, Japan and Bangladesh.

● CHINA	549,479,383
● INDONESIA	95,561,145
● THAILAND	73,254,903
● BANGLADESH	40,871,464
● OTHER	33,231,670
● SOUTH KOREA	31,989,557
● JAPAN	1,646,478
● PAKISTAN	15,553,739
● VIETNAM	11,265,494
○ HONG KONG	6,542,649
TOTAL	879,396,482

(source: ABARES)

AUSTRALIA’S RAW COTTON EXPORTS IN 2011 (KG)



UNDERPINNED BY LATEST RESEARCH, DEVELOPMENT AND INNOVATION

Targeted research has proven to be the industry's most valuable investment. Research funds are invested in four main areas:

- farming systems (soils, water, environment, pests)
- value chain (ginning, processing, spinning, retail)
- human capacity (attracting and retaining a strong workforce)
- biosecurity (reducing the threat of introduced pests and diseases)

Australia also has a world-class plant breeding program, led by the CSIRO, to develop new strains of cotton that are most suited to Australian, and even regional conditions.

The cotton R&D program is funded by Australia’s cotton growers who pay a compulsory levy of \$2.25 per bale of cotton they produce. This is matched by the Australian Government. Individual



cotton organisations (such as [Cotton Seed Distributors](#) and [Cotton Australia](#)) as well as individual growers also fund and participate in research projects for the betterment of the whole industry.

There are many organisations involved in cotton R&D such as the [Cotton Research and Development Corporation](#) (CRDC), the [CSIRO](#) and federal and state government departments.

This research investment has resulted in the Australian cotton industry being recognised as world leaders in the adoption of technology, innovation, environmental management and the production of premium quality cotton.



Cotton Seed Distributors



Cotton Australia



Cotton Research and Development Corporation



CSIRO



Case Study: Growing Cotton in Tropical Northern Australia



Fact Sheet: Research, Technology and Innovation

COTTON AND THE COMMUNITY

Pat and Sue Kennedy,
with their crop,
on their farm near
Condobolin, NSW
photo by Alex Ellinghausen

**ABOVE ALL,
COTTON FARMERS
ARE PEOPLE WHO
LIVE AND WORK
IN OVER 100
LOCAL, RURAL
COMMUNITIES
ACROSS NSW AND
QUEENSLAND.**

They provide jobs, their kids go to school and play sport in rural towns and they shop locally for agricultural supplies and services. Cotton growers are mostly family farmers who have lived and worked in their communities for generations.

The average Australian cotton farm:

- Is family owned and operated
- Provides jobs for eight people
- Grows 467 hectares of cotton
- Is run by experienced farmers with an average age of 39
- Grows other crops and often grazes sheep and cattle

An extensive system of production, harvesting and ginning provides countless jobs for mechanics, distributors of farm machinery, consultants, crop processors and other support services. Industries such as banking, transportation, warehousing and merchandising also benefit from a viable Australian cotton industry.

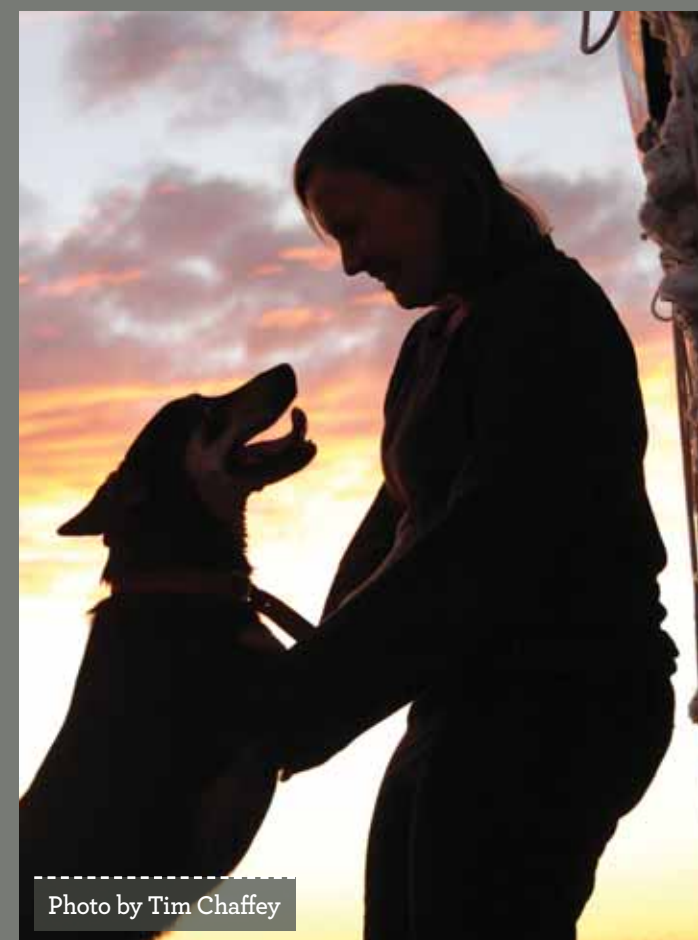


Photo by Bernie Boland

Photo by Tim Chaffey