Rivers Road Organic Farms

The farm was purchased by Richard and Florence Statham about 20 years ago. They had been sheep farmers near Barraba before moving here. Florence and Richard wanted more secure water after years of drought. They thought they would grow grapes with irrigation. Their initial plan for outside investors fell through so they had to rethink how they would do it. Sam, their eldest son, said he would come home if they grew grapes organically. This, and Sam's experience overseas on "multiple occupancy" type farms, meant they drew up a new plan for this farm and used a model almost identical to Strata Title, and went organic.

"Rivers Road Organic Farms" is a Community Title farm. This means that like a Strata Title block of flats, people own their own place but instead of sharing a stairwell, driveway and maybe a BBQ area behind the flats – we share the roads, wildlife corridors and irrigation infrastructure.

There are 12 farm blocks and 8 owners. Blocks have been bought and sold independently – just like a strata title flat would be. There is one currently for sale.

There are 6 owners who live on the farm. We have a "Neighbourhood Association" just like a Body Corporate group. We employ a manager to keep the admin side of things in order and run the meetings.

The house blocks are clustered in the middle of the farm because of a Cowra Council stipulation that people cannot build within a certain distance (I think it is 175m) of an Agricultural zone – because of spray drift getting onto roofs, into rainwater tanks and then causing ill health.

The farm blocks are about 10 ha each. There are 12 farm blocks and about 30ha of common land (wildlife corridors, roads etc).

Owners can produce anything they want on their farm blocks so long as it is: 1) commercial, 2) certified organic and, 3) abides by Cowra Council rules. (One cannot, for instance, run an intensive piggery because of the density of the rural population here.)

Commercial enterprises currently from the farm include: figs, olives, grapes for wine, a variety of tree fruits, vegetables and sheep for meat and wool.

The houses on the farm include 7 straw bale houses, one shed/weekender, the original homestead and a cottage.

Our Neighbourhood Association actually tries to not have too many rules. Instead we have "Intentions, Guidelines and Resources" for most issues outside what Cowra Council has insisted upon. One example is: *The Intention*: that no domestic animal harms wildlife. *The*

Guideline: Cowra Council recommendation on highest number of cats or dogs per household. *Resources*: people who make cat cages and people who are dog trainers.

The community on the farm is actually a very natural community. We don't feel forced or constructed in any way. The clustering of the houses is actually the main factor in its success. By default we get to catch up with each other very often. Then, when we do go to the Neighbourhood Association meetings and have to make big decisions together, and there are multiple view points in the room, we can in a very constructive way because we already share an understanding of each other. Politicians and various radio programs often ask the question, "Can 'design' help 'community' just happen?" From this experience here – with lots of different people, different backgrounds, different ages etc – our answer is yes! Cluster the houses and have some resources shared and – yes – design does help community just happen.

Another aspect to helping the community work well is most people here have been introduced to a tool that helps groups work well. Lots of community groups, organisations and businesses have learnt that the "people stuff" can trump everything – so just like having good tools to do the job of any business, it works well to introduce all the people in the business to a 'people tool' that they all are familiar with. The tool that we have used is called Herrmann Brain Dominance Instrument.

"RIVERS ROAD ORGANIC FARMS"



Notes about Margie and Wooly's house:

We used three main bodies of information to guide our decisions about our house design and materials:

- 1) Solar Passive Design Principles
- 2) Pattern Language
- 3) Adaptable Design

Solar Passive Design Principles include:

Orientation, 2) Thermal Mass, 3) Insulation, 4) Airflow, 3) Light
We went to a course by Gareth Cole (Ecologie Designs) to really learn more about this.
Then we also learnt much from the Earth Building Association of Australia (EBAA). A
combination of straw bale, mud brick and cob was the best for thermal mass and insulation.
An earth house must use all these principles though. If the airflow or orientation isn't right
they will need much more heating and cooling to remain comfortable to live in.

<u>Pattern Language</u> – is a book by Christopher Alexander (et al) about the spaces and orientation of infrastructure that we humans like to use. It is used by many architects and earth builders that we respected.

<u>Adaptable Design</u> is compulsory in many overseas countries. It is where a building is built to cope with all levels of capabilities – right from the start or when any alterations are done on a building. Wheelchair-friendliness may be another way to describe this.

Everything is a decision and it just means that all these ideas went into a decision.

Some of the other interesting bits and pieces about our house include:

- Cool Cupboard Pipes. These are clay pipes laid in the ground before the foundations went down. They have a 1:60 fall. The air intake end is downhill. The other end of the pipes is in the floor in the cool room and the pantry. In the ceiling of these areas there is an air outlet with a whirligig on the roof. It works on the physics of hot air rises. The warmer air exits the pantry and cool room through their ceilings and pulls air from outside the room through the clay pipes in the ground. The air is cooled by the clay pipes and then enters the cool room and the pantry through the vent in the floor. We have measured over 15 degrees C difference between outside and in the pantry room.
- The windows are all double glazed with PVC frames. They have three options. 1) sealed 2) swing open 3) tilt open. The PVC frames don't move or change shape like wood, and don't transmit temperature like metal. Basically if a frame moves and the window can't be opened or closed properly, then the doubled glazing isn't worth it. The frames and fixtures are as important as the window.
- Cement was only used for the smallest rooms and the strip footings. Other areas have poured earth floors. These are made with earth from the site with some sand and straw. A slurry was made and put in place just like a cement floor. As it dried the cracks were filled with more mud and then eventually the floor was sealed. These floors have virtually no carbon footprint compared to cement and are much softer underfoot. They do chip but are

very fixable and as this happens more and more our marble floor pattern gets better and better.

- Walls are straw bale, mud brick or cob. The straw bale walls are the east, west and south walls. Most internal walls are mud brick or cob. Cob is mud and straw put together into a shape about that of one's forearm and stacked into a stud frame wall. Then the wall is rendered just like the straw bale walls.
- Straw bale walls are temperature *and* noise insulating. Live close, but don't hear our neighbours.
- Recycled materials were used as much as was practicable. Z-perlins came from a dismantled shed. Doors came from an old hospital. Ceiling corrugation and gyprock type boards came from an auction of over-ordered materials. Discarded drink fridge doors are used as light windows. Sinks and basins are second hand.
- The fireplace has an oven, cook top and wet-back which backs up the solar hot water system.
- The house waste water goes through an aerated water treatment system.
- The toilet is a compost toilet system that does not have water added to it.
- At most farm houses people enter via the mud room/laundry, *even if* they have a front door. We put our front door and mud room together in a large indoor/outdoor space in the middle of the house and it works very comfortably.
- The garden is designed using Permaculture Principles

Notes about the sheep enterprise: Rayz Organic Grazing

We **cell graze** the animals which means we put them in the biggest mob size we can, in the smallest paddocks we can, for the shortest time frame that we can. The main aim here is to have lots of plants in a growth cycle. When the pasture plants are rested from being grazed, they regrow and their roots grow too. This does lots of good things to the soil. We want the plants and their roots to regrow a lot before they are grazed again. This helps the soil have more life and organic matter in it and it becomes softer. The next time it rains, more moisture goes into the softer soil. Then more plants grow and there is *more* life and organic matter in the soil. It gets better and better. Both the grazing and the resting are important as each other as it keeps this cycle going.

We also use a method of moving the sheep that is very quiet. Because we want to move them a lot to new paddocks it needs to be **stress free** for the animals too. The animals are always moved at a pace where they are walking, not running and not scared. It is so much better and – yes - *faster* than how I used to move the sheep.

To have more plants growing in a paddock we also use a method called **pasture cropping**. The tractor and planting equipment is brought in only once a year. The soil is not tilled before the crop goes in. This lets lots of existing and new plants grow together. It also doesn't damage the soil as much and uses a lot less fuel. In a good year, the crop plant will grow higher than the pasture plants and can be harvested. In a dryer year, the crop plant won't grow to a height that can be harvested, but it is still good food for the sheep to eat.