



Submission

Regional Telecommunications Review



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About NSW Farmers

A profitable and sustainable New South Wales farming sector

The NSW Farmers' Association is Australia's largest state farming organisation representing the interests of its farmer members.

Farmers across New South Wales produce more than \$15 billion worth of food and fibre every year, representing around one quarter of Australia's total agricultural output. Our state's unique geography means a wide variety of crops and livestock can be cultivated and nurtured. NSW Farmers is Australia's only state-based farming organisation that represents the interests of farmers of all agricultural commodities – from avocados and tomatoes, apples, bananas and berries, through grains, pulses and lentils to oysters, cattle, dairy, goats, sheep, pigs, and chickens.

Our focus is not just on issues affecting particular crops or animals – it extends to the environment, biosecurity, water, economics, trade, and rural and regional affairs. We also have an eye on the future of agriculture; we are advocates for innovation in agriculture, striving to give our members access to the latest and greatest innovations in research, development, and extension opportunities. Our industrial relations section provides highly specialised advice on labour and workplace matters.

Our regional branch network ensures local voices guide and shape our positions on issues which affect real people in real communities. Members are the final arbiters of the policies of the Association – through our Annual Conference and elected forums such as Executive Council, members can lobby for the issues which matter to them and their community to become Association policy. Our issue- and commodity-specific Advisory Committees are elected by members to provide specialist, practical advice to decision makers on issues affecting the sector. We are proudly apolitical – we put our members' needs first.

In addition, NSW Farmers has partnerships and alliances with like-minded organisations, universities, government agencies, and commercial businesses across Australia. We are a proud founding member of the National Farmers' Federation.

Executive summary

Access to reliable, affordable, quality telecommunications underpins the viability of farming businesses across NSW, allowing farming families access to business and education services as well as social connectivity.

Access to a high-speed, competitive broadband network; reliable and geographically inclusive mobile coverage; clear and reliable landline service; and a personal understanding of the telecommunications landscape through enhance digital literacy, are essential for the Australian economy and society.

There is enormous latent demand for data in rural, regional and remote Australia, especially from/for farm enterprises. It is critical that farmers overcome the digital divide that currently exists between rural and urban Australia.

If our agricultural sector is to compete in a global market, farmers need to be able to live their lives and conduct their businesses with the support of technology connectivity in a manner that is equitable to engage global information and markets.

Before farmers can consider investing in new technologies that will drive on-farm data consumption and farm productivity, capacity constraints and digital literacy must be addressed to remove the frustrations that form the existing narrative of rural telecommunications.

Australia is yet to see or reap the benefits of a reliable, efficient and effective telecommunications network. If the Federal Government is truly committed to ensuring that Australia has equitable, affordable and reliable telecommunication services, it needs to overcome the hurdles currently standing in the way.

This is especially the case in regional, rural and remote Australia where reliable access will be essential to overcome the tyranny of distance and deliver unparalleled economic opportunities. Reliable connectivity is vital to drive the projected growth of the agriculture sector to \$100 billion by 2030.

No matter where they live, all Australians should have access to affordable, reliable internet, complete mobile coverage and strong voice services.

Recommendations

Copper Landline Service

1. *The Federal Government build into the future Universal Service Guarantee the cost of retaining and augmenting the current copper line infrastructure in regional, rural and remote areas in Australia as a long term solution for the provision of voice services.*
2. *That the Universal Services Guarantee ensures and maintains the rights of regional and rural customers in regards to the timely repair and resolution of faulty copper landline services so that consumers are not digitally and socially isolated.*
3. *The Federal Government conduct a feasibility study on the approximate cost of alternative long term solutions to provide voice services within the nbn co satellite and fixed wireless footprint, including procurement of a voice specific satellite service. Any new service must be cost-effective and have the ability to function without fail in situations, such as a black out following an extreme weather event, and must be able to host Priority Assistance medical alerts.*

Mobile

4. *The Federal Government fund the mobile black spot program (MBSP) in perpetuity, and that the scheme continue to be used primarily to extend mobile coverage to areas without any handheld or antenna mobile coverage.*
5. *State and Territory Governments complement the MBSP by committing funds to deliver small cell towers to extend mobile coverage to areas with no handheld or antenna mobile coverage, that were not included in the Federal Government MBSP rounds.*
6. *The Department of Communications and Arts commence a review into the performance and coverage of mobile towers erected under the MBSP to determine if towers are operating to industry standards and community expectations.*
7. *That Mobile Network Operators cooperate with the ACCC to provide accurate mobile coverage mapping as this will assist consumers to make informed investment decisions and provide industry and government with the ability to identify regional telecommunications investment across the coverage map.*

Internet

8. *Ensure the nbn co SkyMuster satellite and Fixed Wireless data allowance capacity continues to match the rate of Australia's data usage by the Australian Government committing to benchmark the average Australian's data use.*
9. *If satellite is to be the only service option available to regional and remote customers, nbn co must ensure these customers are offered data plans comparable for non-satellite customers to ensure equity in accessibility and cost.*

- 10. Ensure that access to educational resources, services and information for primary, secondary and tertiary school children over nbn SkyMuster satellite and fixed wireless continues to be reliable and cost-effective for all, presently and into the future.*
- 11. The nbn co to establish a dedicated 'Service Centre' function on the nbn co 'Regional' webpage that provides customers with:
 - (a) Information on satellite and tower upgrades and maintenance, including location and approximate timeframes of outages so that customers are well-informed of disruptions to their broadband service,*
 - (b) Published reports and statistics on the number of complaints received and resolution timeframe regarding satellite and fixed wireless services.**

Digital Literacy

- 12. The Department of Communications and Arts establish a dedicated digital literacy enhancement service and information hub to educate, inform and up-skill regional and rural consumers on telecommunications services, products and resources that will increase their on-farm personal and business productivity.*

Landline

Retaining and Maintaining Copper Landline Services

It is the experience of NSW Farmers' members, and particularly those that live in the greatest isolation, that during an emergency either their satellite internet connection or their landline telephone service will work, but not both. Beyond imperatives for business, education or social connectivity, having an alternative means of connection during emergencies is a lifeline for those in isolation.

A recent survey of NSW Farmers' members revealed that 68% of respondents use their landline daily, of which 77% indicated they use their landline for business activity, 68% for personal/social use, 57% for emergency situations and 29% for natural disasters.

The Association regularly hears of situations where farmers have gone without a landline service for well beyond the time periods allowed for under the current USO and associated consumer safeguards. In the experiences of Association members, the current USO and the accompanying consumer safeguards seem to provide little recourse in the event of an issue with their landline. This is even the case when they are dealing with Telstra, who are technically unable to have customers waive their rights under the Customer Service Guarantee (CSG).

A key area of frustration for members is the deterioration in the landline service. In the survey, 52% of members responded that have experienced deterioration, of which 60% reported wiring infrastructure was the first cause, followed by 51% of respondents reporting voice quality was deteriorating.

Similarly, respondents consider clarity in voice quality and absolute reliability as the most acceptable options for a landline, as evidenced by the following comments:

"Landlines need to have high voice quality and reliability, as in an area where mobile coverage works on and off, we rely on landline to run our farming business and invade of an emergency we need a reliable way to call for help."

"24 hour/day service clearer voice & no static or interference."

"We need good voice quality and reliability, we rely on this landline to run our business and in emergency situations."

"Landline should have excellent voice quality and be very reliable."

"If we are to maintain the service we need it to be audible and reliable which it has been to date."

"Should be certain access is available. You should be able to have a conversation without crackling in the line."

"We are remote and have no mobile service so we need full reliability and quality at all time."

“High Quality and Reliability are absolutely necessary as it is often our last form of communication with the outside world especially when the power is lost for prolonged periods which is a regular occurrence.”

RECOMMENDATION:

The Government build into the future Universal Service Guarantee the cost of retaining and augmenting the current copper line infrastructure in regional, rural and remote areas in Australia as a long term solution for the provision of voice services.

RECOMMENDATION:

That the Universal Services Guarantee ensures and maintains the rights of regional and rural customers in regards to the timely repair and resolution of faulty copper landline services so that consumers are not digitally and socially isolated.

ADSL and Copper Services

NSW Farmers supports ACCAN’s position that the ADSL and copper services continue to be vital and important long-term services to regional, rural and remote consumers. The future of these services is uncertain and is causing heightening anxiety for many of our members who rely only on their copper landline, as they do not wish to, or do not have access to, have a home internet service.

As stated by ACCAN, “the current situation is very dangerous because consumers are falling through gaps between the current USO arrangements and Telstra's commercial interests. We have concerns that consumers in some more remote areas currently served by ADSL and copper services will find their service withdrawn, leaving them with satellite as the only alternative.”

Regional and rural consumers deserve choice

NSW Farmers’ is not in a position to comment in any detail regarding the technical capabilities of satellites or alternative technologies to deliver baseline voice services. However, we have serious concerns regarding the capacity of satellite and fixed wireless to meet the Universal Service Provider provisions in the future. Adding to this concern is nbn co’s advice to customers that when migrating, customers should keep copper services active in nbn™ Fixed Wireless and Sky Muster™ satellite areas if they rely on landline phone services in emergency situations (Source: nbn co webpage [‘Do you rely on your landline for communication?’](#)).

Rural and regional consumers just like their urban counterparts, need and deserve choice.

Respondents to the NSW Farmers’ survey overwhelming stated that reliability, ease of operation, affordability and access were the most important considerations for the retention of their landline services.

Respondents were invited to consider what their family and business would require if an alternate technology to the copper landline was proposed in the future. Respondents provided the following comments:

“Work during power outages/blackouts, Cheap , Reliable, Available 24/7, No battery and charging costs, able to make local, national & international calls.”

“The landline has to be cheap as both have mobile phones and the landline is an additional service that we maintain so it adds a cost burden to our business to have 3 numbers.”

“Cheap, failproof and reliable for emergencies.”

“Reliability for emergency calls, work health & safety requires us to be able to care for our employees and our families. We get orders for our poultry business on the landline, that is our whole lively hood [sic]. Satellite is not reliable, have had it here for many years and is terrible for voice calling, not a good option.”

“Good quality, sound reproduction and constant connectivity including in power outages and times of emergency.”

“Reliability, clarity, consistency.”

“Reliability as this is a business and farming enterprise which in order to function needs to be able to do business at any hour of the day.”

“We are running our primary industry business from our property and all communication modes are crucial to our sustainability and progression.”

RECOMMENDATION:

The Federal Government conduct a feasibility study on the approximate cost of alternative long term solutions to provide voice services within the nbn co satellite and fixed wireless footprint, including a procurement of a voice specific satellite service. Any new service must be cost- effective and have the ability to function without fail in situations, such as a black out following an extreme weather event, and must be able to host Priority Assistance medical alerts.

Mobile

Certainty of coverage remains the number one issue for farmers and is vital to the growth and prosperity of the agriculture sector and farm businesses. Connectivity for farm businesses is imperative to facilitate economic growth across agriculture through innovation in production, improved market access and enhanced business productivity.

Making a call on a mobile phone and receiving an SMS, regardless of where a NSW Farmers' member is located on their property, is critical to their business operation, productivity, safety and professional reputation.

A member reports in the survey that it is *"discriminatory to rural businesses that we are not provided with reliable mobile coverage to operate our businesses."*

The survey respondents indicated that they continue to experience issues with mobile devices, 69% reported unreliable mobile reception (mobile calls regularly drop out), 49% reported no or limited mobile reception (can't make or receive calls) and 22% reported they have no mobile data service:

"Our local tower which used to get some reception in the paddocks is now worse, it drops out constantly and doesn't reach to areas it had previously."

"We have mobile dead spots on our property in spite of being only 5 km from a tower in town."

"Tuena has NO mobile coverage from ANY provider."

"Mobile coverage in town and along the highway is good, however there is no mobile service north west of Jerilderie."

"When we get further away from the main service area along the highway, the service reduces and in some cases is non-existent."

"Calls drop out in view of the tower."

"Can make and receive but people find it hard to hear me when in the house yet 12 months ago no problems."

Funding Mobile Black Spot Towers

As many on-farm technological innovations will require connection to the internet, the expansion of 3G, 4G or 5G mobile coverage beyond existing footprints will be crucial in providing the connection required to drive farm business productivity.

The survey revealed that since the commencement of the federal Mobile Black Spot Program (MBSP), 69% of respondents have not received a mobile tower in their town/area, while 31% said they have received a tower under the program.

Given the seeming reluctance of telecommunications companies to install towers at the pace at which rural consumers desire, the continuation of the Federal Government's MBSP will be critical in expanding coverage.

RECOMMENDATION:

That the Federal Government fund the mobile black spot program (MBSP) in perpetuity, and that the scheme continue to be used primarily to extend mobile coverage to areas without any handheld or antenna mobile coverage.

State and Territory Governments must also play a role in the delivery of telecommunications services to their constituents and should complement the federal MBSP by committing funds to deliver small cell towers to be used to extend mobile coverage to areas that were unsuccessful in the Federal Government MBSP rounds. The focus when investing in mobile coverage by State and Territory Governments should be broader than towns and villages and strongly consider the surrounding areas that encompass agricultural enterprises which provide economic benefit for the local communities through employment and productivity.

RECOMMENDATION:

State and Territory Governments complement the MBSP by committing funds to deliver small cell towers to extend mobile coverage to areas with no handheld or antenna mobile coverage, that were not included in the Federal Government MBSP rounds.

Review Coverage and Performance of Towers

NSW Farmers' has received reports from members who have towers erected under the MBSP that the towers are underperforming and not providing the expected coverage. As there has been no review into the coverage and performance of these towers by government or industry since their construction, it is unknown whether these towers are delivering the anticipated benefit for regional and rural communities.

Of the 31% of respondents who reported receiving towers under the MBSP, 50% reported their assessment of coverage was 'about the same', 25% stated coverage was 'better' and 24% stated coverage was worse. Respondents were also asked to indicate (if known) whether the mobile black spot tower is a 3G or 4G tower. Marginally more respondents indicated that the tower was 4G.

RECOMMENDATION:

The Department of Communications and Arts commence a review into the performance and coverage of mobile towers erected under the MBSP to determine if towers are operating to industry standards and community expectations.

RECOMMENDATION:

That Mobile Network Operators cooperate with the ACCC to provide accurate mobile coverage mapping as this will assist consumers to make informed investment decisions and provide industry and government with the ability to identify regional telecommunications investment across the coverage map.

Investments in Technology and Equipment to Expand Coverage

Of the 41% of respondents who indicated they have chosen to purchase additional technology to expand or improve their mobile coverage, 56% reported they have purchased boosters (in-line amplifiers), and 56% reported purchasing antennas (yagi aerials were the most referenced product).

As evidenced by the following comments, purchasing additional technology does not guarantee mobile coverage:

"After installing 4 yagi antennas we still do not have reliable service. Calls regularly drop out or go straight to messagebank without ringing, we do not have service on all our property or the main access road for a number of properties. Wifi slow and expensive."

"Service in house is only due to a SmartAntennae & Yagi aerial, all our vehicles and tractors require car kits with aerials to receive service on farm. around half of the farm has no service even with a car kit. Black spots still exist on our main routes to two closest towns even with car kits."

"Without a booster, we have no coverage and limited town and home without a decent cart kit and aerial."

"We have a booster in the house which gives us a good service but it is patchy around the farm."

"When travelling along Newell Highway there are too many blackspots, have installed two way radio for safety of family in case of accidents or illness."

"We only receive service in our house because of a booster, but this drops out regularly."

"Thousands of dollars, need to update regularly, still limited services."

"I paid Telstra \$2000 for products and we still don't get reception."

"Cel-Fi, it improves coverage in the house, but rarely works, drops in and out all the time."

"Why should I invest in extra technology to make the system that I already pay for function?"

Unlocking Productivity through Greater Coverage

When asked what additional actions they would use if they had improved mobile coverage:

- 83% of respondents indicated they would use it for 'monitoring apps – agribusiness/financial institutions',
- 81% indicated 'downloading apps – farm management tools/collecting data',
- 65% of respondents would 'engage with family/friends through social media',
- 48% of respondents indicated 'reaching new markets – intrastate and interstate', and
- 38% of respondents indicated 'selling and advertising products through social media platforms'.

Farmers are by nature innovators. However, there is the real danger that following repeated failures to improve mobile coverage on farm, some farmers who should be early adopters have become fatigued by all the challenges. As a consequence farmers will actually become late adopters of

innovation, delaying opportunities to increase the economic productivity of Australia's agriculture sector.

Emerging On-Farm Digital Services

Strong and consistent mobile coverage is also important for investments in autonomous agricultural vehicles and robotics that rely on mobile coverage to run analytics and software databases. If the coverage is not strong enough to provide a reliable signal to implement this advanced technology, investments that could revolutionise agriculture's productivity cannot be considered.

NSW Farmers' attended the ACCC Mobile Coverage Forum in March 2018 and presented a case study on challenges farmers face when they invest in on-farm digital services:

In 2015, a member north of Moree invested in a new on farm technology - Australia's first driverless tractor by a Dutch technology manufacturer. In the early stages of its implementation, the farmer was extremely positive about the driverless tractor capabilities for spot spraying and tramline renovations on the 10,000 hectare farm which grows wheat, barley, chickpeas.

On this member's farm sits a Vodafone mobile tower, however the Vodafone signal does not reach to the west side of his farm and he fails to receive a signal once he is 10kilometres beyond the location of the tower. On the other side of the farm, the member receives intermittent service from a Telstra mobile tower that is several kilometres away. As a result he operates his farm using the services of two mobile network operators and has two SIMS for his mobile, switching the SIMS depending on where he is geographically located on his farm.

On any given day, the tractor can send multiple SMS texts to the farmer. This occurs if there is a fault, the weather conditions change or the job is finished. The tractor has a 10minute window for a human to acknowledge the problem and then it shuts down. Depending on where my member or his farm manager is at the time the tractor sends an SMS, it may be hours before the SMS is received and the issue can be rectified. Similarly, the tractor is designed to work 24 hours a day, however my member often discovers in the morning that the tractor has not operated for hours as an SMS message informing of a fault or finish was unable to send due to poor coverage in the location of its use.

It is difficult to put a financial figure on the loss of not receiving a text message, however at \$300 per hour to run the tractor, with a loss of up to 5 to 10 productive hours once a fault is identified and fixed, he is already looking at a \$5000 loss. Reliable and total coverage is critical to my member's business, his productivity and his bottom line.

Without significant investment in network coverage and capacity through further MBSP Rounds, farmers will be unable to invest and deploy the next generation of technology to drive farm productivity and grow international market share. This limitation has a reverberating impact on any future plans to invest in further technology and has the greatest financial impact on all farmers and their ability to grow their business.

Internet

nbn Connections and Issues

The survey of NSW Farmers' members revealed that 52% of respondents are connected to the nbn, of which 67% are connected to the nbn SkyMuster Satellite and 24% of respondents are on an nbn fixed wireless connection.

Since migrating to the nbn, 31% of respondents reported they have 'better' internet connectivity, 27% reported about the same', 21% reported 'marginally better', 10% reported 'worse' and 8% reported 'marginally worse'.

70% of respondents confirmed they have connectivity issues with their internet on nbn services and of those respondents, 77% indicated it was due to slow internet and 66% indicated it as due to unreliable internet, as evidenced by the following comments:

"Service will drop out, and have to turn modem off and on again. Rang provider about this, as it was happening several times a day. They supplied a new modem, which was OK for a while, but now plays up a few times a week."

"Drop outs for no apparent reason, whenever NBN carry out updates, I have to restart my modem. So slow! Our expensive data package runs out and we get no service at all!"

"Too many customers overloading the system. Advertised speeds seldom as sold."

"I have a lot of slow down and dropping out. Apparently it depends on the number of users and the time of day."

"When it rains & alot [sic] of cloud, service is slower or does not work at times."

"Our biggest problem is that we run out of internet about 3/4 through the month and there is no more allocation to be had because it is satellite. Our kids can't complete homework and we cannot work from home."

"Initially it was a joy but as more people have become connected it is now slower than the old satellite very often."

nbn Satellite and Fixed Wireless Data Allowance Challenges

Survey responses show that it is vital that the current SkyMuster satellite and fixed wireless programs evolve to continue to allow for increased data allowance before major congestion problems occur and regional consumers are left behind.

As reported in the Sydney Morning Herald by Jennifer Duke (3 April 2018), "Australians' appetite for streaming video is showing no sign of slowing down..." A typical Australian household will have numerous devices – iPads, laptops, phones, Apple watches, TVs, family computers, PlayStations – connected for the purpose of downloading data. Speed is now the measure of an efficient internet service and "with increased speeds comes increased data usage."

nbn co must ensure that there is capacity in the SkyMuster and Fixed Wireless programs to increase the data allowance to match Australia's ever-increasing volume of data downloads. Similarly, retail service providers should consider designing plans for regional and rural consumer that focus on the speed of downloading content in peak times, as well as preparing for the concurrent rise of the use of data to upload content.

RECOMMENDATION:

Ensure the nbn co SkyMuster satellite and Fixed Wireless data allowance capacity continues to match the rate of Australia's data usage by the Australian Government committing to benchmark the average Australian's data use.

RECOMMENDATION:

Ensure that access to educational resources, services and information for primary, secondary and tertiary school children over nbn SkyMuster satellite and fixed wireless continues to be reliable and cost-effective for all, presently and into the future.

RECOMMENDATION:

If SkyMuster satellite is to be the only service option available to regional and remote customers, nbn co must ensure these customers are offered data plans comparable for non-satellite customers to ensure equity in accessibility and cost.

nbn Outage Information

Many fixed wireless towers are congested at an nbn network level. Information regarding nbn congestion and delayed upgrades is not being passed onto consumers in an easily accessible and clear manner through nbn co or by the retail service providers.

In the survey question regarding faults, respondents indicated that, as a customer it is not clear where the responsibility lies:

"nbn outages are not notified to customers. When you ring retail provider they are unaware of outage and communicate this to nbn. nbn state they made the information on outages available on a group chat notice – unacceptable."

The lack of clearly available and transparent information on nbn's website and the websites of the retail service providers is a serious challenge for regional and rural consumers. Customers have the right to be made aware of network issues by nbn co. This could be through a dedicated notification page on the main website and through enhanced timely communication from the retail service providers to their customers.

RECOMMENDATION:

The nbn co to establish a dedicated 'Service Centre' function on the nbn co 'Regional' webpage that provides customers with:

(a) Information on satellite and tower upgrades and maintenance, including location and approximate timeframes of outages so that customers are well-informed of disruptions to their broadband service,

(b) Published reports and statistics on the number of complaints received and resolution timeframe regarding satellite and fixed wireless services.

Responsibility between nbn co and Retail Service Providers

The survey revealed that 57% of respondents found the migration to the nbn a consumer-friendly process. However, when a fault arises, 64% of respondents reported that as a customer it is not clear where the responsibility lies – nbn co or the retail service provider – to resolve the problem.

A lack of onus of responsibility is evidenced by the comments:

“Someone needs to sort out this Circus and put the blame where it belongs, and it is the NBN not all the retail providers who are copping the brunt of the animosity. NBN does not have the capacity to supply the speed Australia needs and it does not give the service that we pay for. Blaming the Telcos for poor service delivery when it is NBN 's fault for not supplying the Telcos.”

“They keep passing the buck on to one another, no one is responsible.”

“There are no clear lines of communication to resolve issues quickly.”

“NBN always abrogate their responsibility.”

“If the nbn modem is faulty and you report to the internet provider, it doesn't get fixed.”

“My tower constantly fails and NBN says it was the retail provider who was responsible. It was an nbn tower and therefore, their responsibility.”

“NBN co will not take responsibility for its or its contractor errors and the ISP has no idea. When it was discovered we had very poor NBN coverage, caused by an NBN contractor, NBN just wanted to wash its hands of us. The organisation is responsible to no one!”

Productivity Opportunities

While technology innovation has been very clever in harnessing the limited potential, an increased investment in wide wireless broadband coverage will play an important part in unlocking a range of tools that provide productivity gains for agricultural and regional business.

The survey asked how respondents thought they might further benefit from a faster internet connection, both personally and professionally. Running farming enterprises more productively and efficiently was the overwhelming message:

“Everything is changing to online - every business/ school/training/personal. Have to have reliable connection and good technology to maintain.”

“We are in agribusiness . For data analysis for our business, would help with financial markets, banking, Personally will help with general internet use.”

“Reliable Internet Banking, Webinar training, upgrade our business financial program to online data entry, access internet away from the modem ie. Farming internet programs to run our business more efficiently "out of the office" on the run.”

“I would be able to conduct business at a more efficient rate. I would like to use online financial programs that relies on fast upload speeds.”

“We use satellite imagery to monitor crop condition, loading these is very slow so we can't do as much as would like to. We monitor our machinery from the office particularly at harvest,

water probes, stock monitoring & feed back [sic] from drones. This were [sic] we are now and the NBN is only just coping or be it [sic] slowly."

"It would be a lot more efficient to run our business and we would be able to collect and use more data easily. Our internet is so unreliable that we currently don't collect data just use the internet for the bare essentials."

"Would use it to gain more and better information when investigating a product or new equipment or when making sales of produce."

"Inclined to do marketing of my primary production business (cattle stud) plus keep in closer touch with my sons who live overseas and interstate ie. Skype."

"I would be able to participate in on line cattle auctions and do more productive research."

"Access to farming data, quicker online banking, student research assignments, book flights."

Non-nbn Broadband Connection

Of the 45% of respondents who indicated they are not on nbn for internet connectivity, 35% are on a 3G connection, 24% are on 4GX connection, 22% are on a satellite connection, 16% are on ADSL and 1% are on dial up.

The satisfaction levels of respondents on non-nbn broadband services are reported as, 32% unsatisfied, 30% somewhat satisfied, 20% satisfied, 10% very satisfied and 5% extremely satisfied.

Asked if they would consider migrating to the nbn in the future, 37% of respondents indicated they were uncertain, 35% indicated yes and 26% indicated no. Asked why they had not migrated to the nbn, respondents commented that:

"The biggest issue in our area is the NBN . It needs to be accessible, affordable and reliable and there needs to be another option to satellite which is the worst form of internet connection available. Home based businesses have had to rent the limited office space available in town just to be able to operate adding additional expense to their operations. The NBN should be provided as a community service obligation in the same way as the copper telephone lines and handsets were in the past."

"We would like to switch to the NBN, however still require a Telstra landline due to poor mobile reception and reliability. However, the cost of the Telstra landline and SkyMuster NBN service exceeds the current cost of Telstra landline + ADSL service."

"I have considered Skymuster, but the latency makes it unsuitable for my required service needs."

"Feel that the NBN will be very quickly outdated and we will be forced into more expensive and complicated technologies instead of improving the systems we already had."

"The only option currently available to farmers who are more than 10km from town is satellite NBN , which is a 2nd class solution. Increased numbers of fixed wireless towers, or lower cost mobile data options are desperately needed."

"The Reason we have not moved to the NBN is because we are only being offered Skymuster as you are aware the cost per GB is very high, the service is also known to be very unreliable in our area, by changing to this service we would also have no communication during a power outage."

“NBN plans are very confusing. Have been advised that the forest near our house will impede the satellite if installed and it will cost us extra to site the dish.”

Digital Literacy

For many NSW Farmer members, digital literacy is increasingly challenging due to the ever-changing telecommunications environment. Farmers are seeking accessible and transparent information and resources to develop their digital literacy so that they can confidently participate in the digital world and better utilise technologies to maximise economic benefits.

The complexity of telecommunications delivery has become one of the largest challenges for customers trying to understand what is available. The complexity relates to what technology is available and what it will deliver; where it is accessible and from whom; and the diversity of plans across all telecommunications services. This complexity has led to confusion and frustration for many.

Members reported in the survey that :

They are *“Frustrated with everything being so technical yet we can’t access or use them.”*

“Once a upon a time if one had telecommunication problem you dealt with Telecom. Now you do not know who to turn to, no single one-stop-shop available. Telecom had responsibility to ensure all had equality of telecommunication service.”

The member survey revealed that respondents are building their digital technology knowledge and skills through Google searches (84%), ad hoc discussion with family and friends (72%), social networks – facebook and twitter posts (37%) and online workshops (23%).

The following comments indicate where members have learnt their current digital skillset and knowledge:

“Family and friends assistance.”

“Attended lots of workshops.”

“Have been to a seminar on how to do Facebook business pages/ web pages.”

“Pay professionals.”

“Communicating with private companies and Telstra employees.”

“TAFE courses and self taught.”

“Formal face to face training (IT Skills Courses).”

The Problem

While farmers are seeking to embrace technology advancements and services, there is a lack of transparent resources and support initiatives that can provide these consumers with independent and relevant information to suit their personal and professional needs.

Feedback from telecommunications experts is that consumers are sold standardised product packages without assessment of their unique usage requirements or the connectivity options in their area, rather than working through bespoke solutions. This has led to regional and rural consumers being unaware of the complete number of solutions available to them. Coupled with an unrealistic expectation of the level of digital literacy required to understand what telecommunication services are available, this has discouraged consumers to research options.

Creating Informed Consumers

Building an unbiased, objective knowledge base so that farmers can be informed consumers will significantly reduce the frustrations and lessen the digital gap between metropolitan and regional consumers.

NSW Farmers' proposes an Australian-based digital literacy service hub with a physical location preferably in a regional centre and an online presence, staffed by personnel with technology, product and service expertise, who understand the geography and challenges facing regional and rural Australians.

RECOMMENDATION:

The Department of Communications and Arts establish a dedicated digital literacy enhancement service and information hub to educate, inform and up-skill regional and rural consumers on telecommunications services, products and resources that will increase their on-farm personal and business productivity.

This digital literacy information and service hub would:

1. Provide factual information on infrastructure and product availability to 'humanise' the great technology options (devices and equipment) that are available for mobile coverage and internet connectivity,
2. Help consumers to ask the most informed questions when purchasing telecommunications devices and negotiating the retail packages on offer,
3. Raise awareness of the options for 'on-farm' technology enabled business solutions,
4. Improve visibility of the consumer's rights and responsibilities when a fault arises in a service (broadband, mobile, landline) and provide measures on how and with whom to resolve, referring to complaint and regulatory agencies (Australian Communications Media Authority, Telecommunications Industry Ombudsman) if required,
5. Provide an online accredited price comparison scheme for broadband, voice and data plans,
6. Articulate where Mobile Network Operators have invested in mobile coverage across Australia
7. Build awareness of all technology providers, in particular the 130+ small independent technology providers,
8. Another other relevant connectivity and coverage issues and questions.

Conclusion

It is vital to the agriculture sector that the enhancement and delivery of affordable, accessible and reliable telecommunications services is a success for regional and remote consumers. Without significant investment in network coverage and capacity, increased data packages on broadband services, retention and maintenance of landline services and enhanced digital literacy, farmers will be left behind.

Further, the agriculture sector will be unable to invest and deploy the next generation of technology to drive farm productivity without reliable and strong mobile coverage and internet connectivity. The Association believes that the rise of these technologies heralds significant opportunity in agriculture, and may create sufficient demand dynamics to make expanded mobile coverage and increased data broadband data packages in regional Australia more commercially appealing.

Regional and rural Australia deserve a fast and fantastic digital service to support all enterprises and operations that will contribute to the agricultural sector's projected growth of \$100billion by 2030. To reach this goal, it will require the elimination of all challenges and limitations across the telecommunications sector.