



final report

Project code: P.PSH.0751

Prepared by: Grant Haugen
Thorsys Australia Pty Ltd

Date published: 3 March 2017

ISBN:

PUBLISHED BY
Meat and Livestock Australia Limited
Locked Bag 1961
NORTH SYDNEY NSW 2059

eNVD producer and processor application

Meat & Livestock Australia acknowledges the matching funds provided by the Australian Government to support the research and development detailed in this publication.

This publication is published by Meat & Livestock Australia Limited ABN 39 081 678 364 (MLA). Care is taken to ensure the accuracy of the information contained in this publication. However MLA cannot accept responsibility for the accuracy or completeness of the information or opinions contained in the publication. You should make your own enquiries before making decisions concerning your interests. Reproduction in whole or in part of this publication is prohibited without prior written consent of MLA.

Executive Summary

With the creation of the eNVD database and interface by MLA, a requirement existed to provide an easy user interface to submit and receive eNVD data.

It was determined that the most convenient and cost effective solution was to use smartphones, based on the fact that most people use them every day. The reasons for choosing a smartphone are:

-

- 1) Most users already have a smartphone, so no specific outlay was required
- 2) Users are already familiar with the interface
- 3) Training of the app itself is not required due to it being a 1 to 1 copy of the layout and information on the familiar paper NVD

The project was written for all 3 popular smartphone

- 1) Apple iPhone/iPad
- 2) Android
- 3) Windows Mobile

The app for each of these smartphone groups was successfully created and is now available on the appropriate app store for the device type

The main benefits to industry are: -

- 1) Producer
 - a. No need to buy NVD books
 - b. No need to carry NVD books with them or return to the office/house to fill out paperwork
 - c. Ability to scan eartags if they have an RFID reader
 - d. Can lookup past eNVDs on the smartphone anywhere, anytime
- 2) Transporter
 - a. No need for truck driver to carry NVD paperwork
 - b. Eliminates lost paperwork
- 3) Processor
 - a. Receive eNVD details before the stock arrives on plant, therefore helping with planning of kill / purchase order
 - b. No need to store NVD paperwork for years, requiring a safe dry location
 - c. eNVDs can be searched for enquiry and (most importantly) audit purposes without search physically through thousands of pieces of paper
 - d. Ability in the processor system to create purchase orders and kill agenda based on eNVDs
 - e. No transcription errors while re-keying information from a paper form

Table of Contents

1	Background.....	4
2	Project Objectives	4
3	Methodology	4
4	Results.....	5
5	Discussion	5
6	Conclusions/Recommendations.....	5
7	Key Messages	5
8	Bibliography	6
9	Appendix.....	6

1 Background

With the creation of the eNVD database and interface by MLA, a requirement existed to provide an easy user interface to submit and receive eNVD data.

The MLA would not provide the applications for data input, only the interface and data storage.

The promoted Thorsys to submit a project for funding in the 2 areas of Producer and Processor, with separate objectives listed below.

2 Project Objectives

The objective of the project included 2 main areas

- 1) Producer – Provide a low cost application, running on hardware that already exists, to eliminate paperwork and transaction costs.
- 2) Processor – Provide an interface to the eNVD database that receives data automatically and interfaces with the existing Processor system in the following ways:
 -
 - a. Provides eNVD information for kill agenda creation
 - b. Provides eNVD information for purchase order creation
 - c. Saves the eNVD data in the existing processor computer system so it can be searched and audited.
 - d. Eliminates paper storage and searching

3 Methodology

The first app to be produced was for the Apple iPhone/iPad. It was initially written using Apple's SWIFT programming language. While we were successful in producing this initial experimental design, it presented an issue with the other 2 apps to be produced, as the code and screens could not be re-used, extending the development lifecycle.

Investigation into a multi-platform development environment was conducted, and Thorsys chose the Xamarin IDE, as it interfaced into the Visual Studio 2015 environment, which Thorsys already used for all of its other development.

The 3 apps were then developed in-house using Thorsys' resources. They have been written in the C# language and use SQLite as its internal database.

Each of the 3 apps have a common interface design, layout and functionality, making the choice of device that it runs on a non-issue, and the complete choice of the user.

4 Results

The apps for the 3 chosen devices are now live on the appropriate app stores (iTunes / Google Play / Windows Store)

The apps have been tested and approved by MLA staff and certified to comply with version 2 of the data dictionary developed and supplied by the MLA.

Field testing of the app has been very limited due to willingness of testers, but the tests we have done have been successful.

5 Discussion

The next area of inclusion will be the full saleyard integration, providing them the same benefits as the producer and processor combined.

Work has already started on this.

While in the trial only stage, there is no cost for download and use.

Once the project enters the live stage, it is envisaged the app will attract a once off charge. There will be no ongoing or transaction costs.

The main area of improvement would be the operating of the field trial. While we were successful in creating and uploading trial eNVDs while on-site, these were only at the Processor's saleyard, and not at a processor property. This was due to us finding a willing participant extremely difficult to find.

6 Conclusions/Recommendations

The supplication development has been successful, and is evident by the publication on the appropriate app stores.

As mention previously, the saleyard interface is being added now

As eNVDs become more mainstream and gain more acceptance, the 3 apps will be more widely used. This will require continued promotion of benefits from the MLA and willingness to use updated technology by the producer, which is sometime a difficult task.

7 Key Messages

Adoption of new technology is key, for the producers. Thorsys' existing processors have already indicated that they will purchase the processor automatic download software, and some have already been installed.

As more and more producers use the new technology, we envisage a snowball effect of acceptance until almost all stock movements will be using some form of eNVD.

8 Bibliography

9 Appendix