



Checklist for making changes to milk harvesting infrastructure

1. Introduction

The purpose of this Quick Note is to provide a reminder checklist to streamline the preparation phase of any major upgrade of the milk harvesting facilities. There is a large range of options to choose from when upgrading milk harvesting infrastructure. Checking that all present and future needs have been considered can help avoid confusion and costly mistakes.

2. Interpretation and relevance to Australian conditions

Checking that all necessary elements have been included before seeking quotes will mean quotes need be sought once only. Sending a single set of requirements to all suppliers also ensures they are all quoting on the same job, allowing meaningful comparisons to be made between quotes.

3. Relationship to CowTime goals

Planning for change to improve efficiency, the working environment, safety and animal handling is the key object of CowTime. Using this checklist in the planning acts as a reminder to ensure all aspects of the proposed upgrade have been considered. This will reduce the costs associated with modifications or retro-fittings by assisting in getting it right the first time.

4. Features of the checklist

This checklist is a set of reminder prompts so that all aspects are considered when planning an upgrade to the milk harvesting infrastructure upgrade. A green-field project will involve consideration of all categories. An upgrade project will involve only those sections that apply to the infrastructure being changed.

The list may be used to ensure everything has been included in the specifications or simply as a list of items to work through during the design stage. Space has been provided to indicate that each item has been considered. A system of ticks and crosses is suggested to indicate those items that are okay and those needing fixing or upgrading. Space is also provided for a brief description of the problem or upgrade required and the anticipated cost or funds available to complete the upgrade.

5. Potential challenges with implementation

The checklist covers the key aspects at the time of writing. While the checklist attempts to address all aspects in planning for change, it is not designed to specify every aspect in fine detail.

As new techniques, technology and management practices are developed they should be added to the list. Relying on the list alone may result in some unforeseen aspect being forgotten. Any particular farm requirements not included should be added to the list.

6. Robustness of this information

Information confidence: high

7. References and further reading

Hemming, P. (1999) Milking Facility Checklist. Personal communication. PHA Australia Pty Ltd

DairyCHECK NSW Agriculture (2001) Appendix 1, Checklist summary. From "Improving Shed Management for Profits". NSW Agriculture, Locked Bag 21, Orange, NSW, 2800, pp. 57-60

Kondinin Group (2000) Dairy warranties, quotes and contracts. Research report in Farming Ahead No. 100, April 2000, pp. 38-43,

Disclaimer: The options, advice and information contained in this publication have not been provided at the request of any person but are offered by the Dairy Research and Development Corporation solely to provide information. While the information contained in this publication has been formulated with all due care and in good faith, the contents do not take into account all the factors which need to be considered before putting that information into practice. Accordingly, no person should rely on anything contained herein as a substitute for specific advice.

A checklist for milk harvesting infrastructure

Date

√ Tick box if changes are needed

Aspect	√	Describe changes required	Budget/Cost
Whole farm plan / Layout			
layout suits future herd size			
features suit future cow size			
layout suits future management			
Water			
availability			
source(s)			
quality (hard, ph, bacteria)			
storage			
Electricity			
availability			
phase			
transformer size			
switchboard capacity			
safety switches			
back-up provision			
earthing for stray voltage			
Paddock to Yard			
Paddock exits			
drainage			
width			
Laneways			
fencing			
width			
surface			
slope			
drainage			
corners			
Laneway-yard junction			
width			
surface			
slope			
stone trap			
drainage			
Dairy Entry			
Yards			
shape			
size			
surface			
slope			
entrance/exit			
backing gate			
fencing / gates			
no. of yards			
cow cooling			
Dairy entrance			
width			
slope			
surface			
lighting			
entry race			
stray voltage			

Aspect	√	Describe changes required	Budget/Cost
In the Dairy			
Shed			
type (herringbone/rotary)			
size (number of clusters)			
shell (roof & wall) materials			
internal framing			
Dairy set-up			
lighting			
cow platform			
suited to cow size			
cow angle			
cow spacing/stalls			
urine splash shield			
cow entry including gates			
cow exit including gates			
down cow removal			
dairy cleaning (water hoses)			
in-bail feeding			
feed delivery			
Teat hygiene			
udder preparation			
disinfection method			
disinfectant supply			
teat coverage			
Labour			
milker numbers			
relief milkers			
Working environment			
operator space			
operator lighting			
safety equipment			
pit flooring / mats			
office			
tea room			
toilet/shower			
hand washing			
ventilation			
heating/cooling			
fly control			
chemical storage			
medication storage			
notice boards			
wash trough			
Milking equipment			
number of clusters required			
cluster type			
weight			
claw			
shells			
liners			
tubing			
Pulsation			
type			
filtered air			
pulsators			
controller			

Aspect	√	Describe changes required	Budget/Cost
In the Dairy cont...			
Tubes			
milk			
pulse			
Pipes			
airlines			
milk line height			
milk line size			
materials			
Vacuum supply			
gauge			
regulator			
interceptor			
sanitary trap			
vacuum pump(s)			
variable speed drive			
exhaust 1-way valve			
exhaust location			
Milk transport			
pump capacity			
pump type			
pump control			
receiver			
filter			
Automation			
EID reading			
EID tags			
feeding			
milk meters			
cup removal			
drafting			
plant / vat cleaning			
teat disinfection			
weighing			
Computer management system			
herd management software			
remote computer access			
hand held computer (PDA)			
Ancillary pumps			
air compressor			
Withholding of unsuitable milk			
test bucket			
dump line			
pump (to calf feeders)			
colostrum capture/storage			
Cleaning up			
Plant cleaning			
method			
detergent routine			
detergent dispensing			
water heater type			
hot water storage capacity			
Vat cleaning			
detergent dispensing			
Hot water storage capacity			

Aspect	√	Describe changes required	Budget/Cost
Cleaning up cont...			
Yard cleaning			
method			
water storage/availability			
drainage			
sump / filters			
Milk cooling & storage			
Pre-cooler			
type			
supply water pump/rate			
variable speed controller			
Thermal storage			
cooling tower			
refrigerated thermal store			
Milk storage and refrigeration			
instant chiller			
vat capacity			
cooling capacity			
milk storage location			
milk room size			
Ancillary handling facilities			
footbath			
catching yard			
AI race			
loading ramp			
crush			
Effluent			
yard cleaning			
solids trap			
transfer			
storage			
treatment			
utilisation			
Feed pad			
base			
trough			
shade			
wagon access			
drainage			
Other			
tanker access			
feed delivery access			
feed storage			
feed processing			