

A comparison of some Newcastle disease vaccines available in Malawi*

There are a range of vaccines available in Malawi to combat Newcastle disease (ND) in poultry. Some are best suited for use in commercial poultry; others for use as a booster vaccine; others for use in free-range village poultry. How then to decide which is correct?

All these vaccines contain a type of Newcastle Disease virus which is weak. It is strong enough to infect the vaccinated chicken but not strong enough to kill it. However, because of this infection, the chicken gains its own immunity over the next week or so. That immunity will fight off a future infection by the real Newcastle disease virus.

Below is a brief summary of some of the more important features of the live vaccines currently available. It will help you decide which particular Newcastle disease vaccine is best suited for your purposes.

With all vaccines (indeed all medicines), **read the label or leaflet carefully** and in particular check the expiry date, storage conditions, and method of reconstitution if required.

Vaccine strain ¹	Usual Administration	Immuno-genicity ²	Vaccinal reaction ³	Thermo-stability ⁴	Cost ⁵
Hitchner (or "B1")	Water ⁶	++++	Low	+++	Low
F strain	Water	++++	Low	+++	Low
La Sota	Water	+++++	Moderate ⁷	++++	Low
La Sota	Eye drop (Hester brand)	+++++	Moderate	++++	Medium
I-2 ⁸	Eye drop	+++++	Very low	+++++	Medium

References:

- Anon. "Newcastle disease vaccines: an overview". <http://www.fao.org/docrep/005/ac802e/ac802e04.htm> (Accessed 2 January 2022)
 Bell, JG. 2000. "A comparison of the different vaccines available for the control of Newcastle disease in village chickens". https://www.aciar.gov.au/sites/default/files/legacy/node/2131/pr103_pdf_63743.pdf (p56-60. Accessed 2 January 2022)

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- 1 Not to be confused with trade name. The same strain might be available under different trade names.
- 2 This is a measure of the 'strength' of the vaccine in protecting chickens from ND.
- 3 This is a measure of the 'safety' of the vaccine in not harming chickens.
- 4 This is a measure of how long the vaccine stays effective after removal from the fridge.
- 5 Indicative cost per dose. In practice, all these vaccines are extremely cheap considering their potential to prevent significant losses.
- 6 Vaccines administered via water are best for housed chickens. For village chickens, vaccines administered by eye drop are more effective.
- 7 La Sota and I-2 are slightly different. I-2 is weaker and does not make chickens sick. La Sota is a bit stronger and may make young chicks sick and some might even die. So why use it? Because the immunity it produces is also stronger. That is why it should be used as a booster vaccine in chickens which have previously been vaccinated.
- 8 I-2 and La Sota (eye-drop) are well suited for use in village poultry. Other ND vaccines work well in housed chickens but their effectiveness under practical village conditions has been disappointing.