




# Ngilingu bonowu ndungu (CLA) e dow

*Spodoptera frugiperda*

	Deentingol	Deengol	Hare tiindiinde	Hare tiindiinde	kade
 <p>Joowre boccoode <i>Ngilingu</i> (Desiree van Heerden, Syngenta)</p>	<ul style="list-style-type: none"> <li>◆ Aawde law e tobooji gadani sabu kulle gildfi bonooji ndungu (CLA) beydoto so yonta o ina yaha.</li> <li>◆ Ndeentode wodfondirde ñalinguu ji aawgol sabu adum addata ko ñaamde wonande CLA.</li> </ul>	<ul style="list-style-type: none"> <li>◆ Fudfdaade deengol so makka fufi tan.</li> <li>◆ Yeewaade 10-20 ledde deggondirde e nokkuu ji 5 ceerdi e ngesa hekadi betaade % daabgol: (yiyi tindinoore deengol):</li> <li>◆ Yiiloraade maale nguura CLA:               <ul style="list-style-type: none"> <li>* CLA ji buri weebde reende ko nde ngoni tokoosi.</li> <li>* CLA ji ina metti yitunde no feewi sodfi pamdii.</li> <li>* Yiilaade maale CLA nder baramlefi mawdi jaltooji (wutaandu): tobbe laabtude ("palanteeje") e kudde juutde.</li> <li>* Yiilaade dendingol salte CLA nder wutaandu</li> </ul> </li> </ul>	<p><i>Ndu suudu wertindu ina sifoo peeje aynugol burde hoolnaade wonande remooobe tokoosbe.</i></p> <ul style="list-style-type: none"> <li>◆ E gese tokoose, soñrude jungo kadi bonnude joowe boccoode e gildfi.</li> </ul>	<p><i>Ndu suudu ooldu ina sifoo peeje aynugol naamdiide deentorde hoolaare godde wonande remooobe tokoosbe.</i></p> <ul style="list-style-type: none"> <li>◆ Reenaade sarkitde barooje koowoje peewnaade e nokku jaayo baawooje warde koowoje nafooje walla bonande caroowo</li> <li>◆ Cufode tan gaweeje mo dañde mum ayneede CLA ina hollita.</li> <li>◆ Kabirde deentorde nedfo (EPI) poti ko boorneede ngam ustude memondirgol barooje koowoje. EPI ina wadi: wutte, kawase, poofirde e pade bata.</li> <li>◆ <b>lajal hade coñal ngal (DAR)</b> woni saha hakkunde badgol barowal e saha nde ndema ka waawata soñeede. Tobbe DAR les do betira ko famamuya deentorde, kono so tobbe DAR buri toowde tobbe bindaande e kaayit barowal, tinnode mbatte hakkile e oon saha burdo juutde.</li> <li>◆ <b>lajal ciirgol ngol (DS)</b> woni saha waktu dewdo e cargol barooje hade hay gooto waawde naatde e ngesa hesba ba. Tobbe DS gaddaade ina njaada e ngonkaa ji nde EPI ji njogaako. So tawi DS bindaado e kaayit barooje buri juutde tobbera rokkaande les do, tinnode mbatte hakkile e oon saha burdo juutde.</li> </ul>	
 <p>Ngilingu bonowu ndungu Yiilaade "Y" o junntide e hoore walla tobbe e dow (Russ Ottens, Jaabi haatirde Georgia, Bugwood.org)</p>	<ul style="list-style-type: none"> <li>◆ Sona joga, ngaawe sifaa ji makka dartotoodi CLA.</li> <li>◆ Miijode aawde sifaa ji makka mawnooji law.</li> <li>◆ Huutoraade bete engere potde kadi mbada heen saana burdo moyyude ngam fudnude ledde tekkude baawde lomtinde boneeji garooji.</li> <li>◆ Ittude hudooji baadi no maaydi e saraaji lowre nde.</li> <li>◆ Aawde copotti ledde besnooje walla ledde fuloraaji juutooje taarto ngesa ba, wona kodorde koowoje, daddooje e ndiwrii ji.</li> <li>◆ Mbade ndemaaji lomlonti e makka e ndemaaji jaadudi kadi di tuumnaani seeda hono ñebbe e kaani.</li> </ul>	<p><b>Nokku pellital:</b></p> <ul style="list-style-type: none"> <li>◆ So fudfiima ummaade (wutaandu so tolniima e hofru), yettude dawrudfi aynugol so &gt;20% ledde de fudfiima bonde.</li> <li>◆ So fudfiima ummaade (wutaandu so tolniima e balabe), yettude dawrudfi aynugol so &gt;40% butaali bonaanma kadi.</li> <li>◆ So tolniima e jibinde walla wortiima, dartinde badgol barooje koowoje.</li> </ul>			
 <p>Bonandee ji e baramlefi, saabo "palanteeje" (Phil Sloderbeck, Jaabi haatirde leydi Kansas, Dudal mo Entomoloji)</p>					<p>Ngam kabaruu ji goddi, tiinode yeewone <a href="#">Ndungu Armyworm e Africa: dowitorde ngam toppitagol bonande naworaande</a> (USAID &amp; CIMMYT), <a href="#">WHO yamira ceerndugol pelle barooje koowoje</a> (WHO), <a href="#">yewtagol jeertagol barooje</a> (Jepson e wofbe., DOI: 10.1098/rstb.2013.0491)</p>
				<ul style="list-style-type: none"> <li>◆ <i>Bacillus thuringiensis</i></li> <li>◆ Chlorantraniliprole</li> <li>◆ Acétamipride + Lambda-cyhalothrin</li> </ul>	<ul style="list-style-type: none"> <li>◆ <b>DS 1</b> ñalawma; <b>DAR 1</b> ñalawma</li> <li>◆ <b>Fedde OMS III</b> posonidfi cetta</li> <li>◆ <b>DS 1</b> ñalawma; <b>DAR 21</b> ñaldfi</li> <li>◆ <b>Fedde OMS U</b> musiiba ceebdo</li> <li>◆ <b>REI 1</b> ñalawma; <b>PHI 21</b> ñaldfi</li> <li>◆ <b>Fedde OMS II</b> posonidfi seeda</li> </ul>

**WINDU'BE:** Durocher-Granger L (CABI), Babendreier D (CABI), Huesing JE (USAID), Jepson PC (Jaabi haatirde Oregon), Eddy R (USAID), Prasanna BM (CIMMYT). Nde dowitorde wadiraa ko e ballal batte ngalu teentungal mo Feed the Future, njokkondire e [fallarmyworm@usaid.gov](mailto:fallarmyworm@usaid.gov). Plantwise wallatadam ko dental rokkoobe. Yiyi [www.plantwise.org](http://www.plantwise.org).

**WAYLI KO:** Samba Diao BA (DPV), Willane AF, Gaye M, Ndour M, Diene O, Dieng EO, Cisse RM, Faye Y, Fall PM, Ndiaye A.

**FEEWNA/HESDITINA:** Lewru seedto 2018

**WAAS SEEDA, ÑAMMIN KO HEEWI**

Plantwise ko ebboore aduna mo CABI ardi. [www.plantwise.org](http://www.plantwise.org)

# LeIngo yuurnito ngoo

Nde aawaa ndee:	diiwaan:							kolangal:							innde maa:							
	yontere 1 (adannde)							yontere 2 (dimmere)							yontere 3 (tatabere)							
Lajal (dumunna) yeewndagol																						
Tolno mawnugol (layagol) makkaari ndii:																						
Laje (dumunnaaji)/sembe jamirooje dee:																						
Fannuujii tooke kuutoraade, keewal e dumunnaaji:																						
Dokke wilde ko wiinniraa koo	Beydee tooweendi wilde ndee doon do makkaari ndii ina beydoo mawnude Les wilde ndee foti tolnaade ko e 30 cm tiimta e gawye dee																					
keewal CLA mawdi:																						
keewal babbatti timmuɗi di iwɗi Afrik																						
<b>Tolno lesɗudo wullo ngoo (VE-V6)</b>	<b>Njuurnito-dee (nebbiso-dee) laabi diidi haa tati (2 à 3) beremlefi kesi mawnooji e wullo ngoo.</b>																					
<b>Daawe juyi</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Fof hawra (kawral)</b>	<b>%</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Fof hawra (kawral)</b>	<b>%</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Fof hawra (kawral)</b>	<b>%</b>	
#Keewal puɗi gondudi e layanteeje kese/Keewal																						
#keewal puɗi gondude e gulle ñawɗe/Keewal																						
<b>Tolno yellitiido wullo ngoo (V7-VT)</b>	<b>Njuurnito-dee (nebbiso-dee) laabi tati haa nayi (3 à 4) beremlefi kesi mawnooji e wullo ngoon, yantude e biltugol ngol.</b>																					
<b>Daawe juyi</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Fof hawra (kawral)</b>	<b>%</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Fof hawra (kawral)</b>	<b>%</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Fof hawra (kawral)</b>	<b>%</b>	
#Keewal puɗi gondudi e layanteeje kese/Keewal																						
#keewal puɗi gondudi e gulle ñawɗe/Keewal																						
<b>Tolno jaltugol jomɓo kam e leeɓi (R1-R3)</b>	<b>Njuurnito-dee beremlefi e butaali, kono kadi e naafɗe beremlefi dii (dow e les wutaandu nduu).</b>																					
<b>Daawe Juyi</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>fof hawra: kawral</b>	<b>%</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Fof hawra (keewal)</b>	<b>%</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>Fof hawra (keewal)</b>	<b>%</b>	
#Keewal gawye bonnaade ko booyaani/Keewal																						
# keewal gawwe gondude e babbati/Keewal																						
# keewal gawye bammɓude butaali bonɗi/Keewal																						