

ECOLOGICALLY SOUND MANAGEMENT OF ECTOPARASITES AND OXPECKERS

ECTOPARASITICIDE – OXPECKER COMPATIBILITY CHART[©]

NASHUA WCPG 24 hrs
EMERGENCY HELPLINE



082 802 6223



RAND MERCHANT BANK
OPERATION OXPECKER
INFORMATION LINE
082 325 6578



IMPORTANT INFORMATION

THIS DOCUMENT SERVES ONLY AS A GUIDELINE. IT DOES NOT REPLACE THE PRODUCT LABELS. REFER TO THE PRODUCT LABELS FOR THE CORRECT AND LEGAL APPLICATIONS.

OXPECKERS AND STARLINGS ARE HIGHLY SENSITIVE TO ORGANOPHOSPHATES – PRODUCTS THAT CONTAIN ORGANOPHOSPHATES SHOULD THUS BE AVOIDED IN AREAS THAT ARE INHABITED BY OXPECKERS. PYRETHROIDS, AMIDINES AND CERTAIN MACROCYCLIC LACTONES ARE FAR LESS TOXIC TO BIRDS BUT GREAT CARE SHOULD STILL BE TAKEN TO AVOID AFFECTING BENEFICIAL ORGANISMS LIKE DUNG BEETLES AND EARTHWORMS.

Mixing of home made acaricides (tick control agents) is the major reason for parasites developing resistance to animal dips. Home mixing, apart from being an illegal practice, also contributes to the escalating prices of animal dips, as new products have to be developed at great costs. The Wildlife Conflict Prevention Group therefore recommends that **NO** products other than those that are specifically manufactured as animal dips should be used for the control of ectoparasites.

Contact the registration holder or distributor of the product immediately if resistance to a particular product is suspected.

The golden rules to avoid resistance are:

Use only registered products.

Use products only what they are registered for: check the label for animals and parasites that they are registered for.

Always read the label for instructions, precautions and application rates.

Apply the full dosage of the recommended products – half the dosage may be cheaper but will not give the desired effect.

EKOLOGIES SINVOLLE BESTUUR VAN EKTOPARASIETE EN RENOSTERVOËLS EKTOPARASITISIED – RENOSTERVOËL VERSOENBAARHEIDSGIDS[©]

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BELANGRIKE INLIGTING

HIERDIE DOKUMENT DIEN SLEGS AS 'N GIDS. DIT VERVANG NIE DIE PRODUKETIKETTE NIE. RAADPLEEG DIE PRODUKETIKETTE VIR DIE KORREKTE EN WETTIGE TOEDIENINGS.

RENOSTERVOËLS EN SPREEUS IS UITERS SENSITIEF VIR ORGANOFOSFATE. PRODUKTE WAT ORGANOFOSFATE BEVAT MOET DUS IN AREAS WAAR RENOSTERVOËLS VOORKOM, VERMY WORD.

PERITROIËDE, AMIDIENE EN SOMMIGE MAKROSIKLIESE LAKTONE IS BAIE MINDER TOKSIES VIR VOËLS, MAAR MOET STEEDS MET GROOT OMSIGTIGHEID GEBRUIK WORD OM SKADE AAN NUTTIGE ORGANISMES SOOS MISKRUIERS EN ERDWURMS TE VOORKOM.

Tuismengery van akarisiëde (bosluisbeheermiddels) is die hoofrede waarom parasiete weerstand teen dipstowwe opbou. Tuismengery, benewens die feit dat dit 'n onwettige praktyk is, is ook die rede waarom dipstowwe se pryse die hoogte inskiet. Nuwe produkte moet voortdurend teen geweldige hoë koste ontwikkel word omdat bestaande produkte nie meer effektief is nie. Die Konflik Voorkomings Groep beveel dus aan dat slegs produkte wat spesifiek as dipstowwe ontwikkel is, vir die beheer van ektoparasiete gebruik word; GEEN ander produkte moet gebruik word nie.

Indien weerstand by parasiete waargeneem word moet die registrasiehouer van die produk onmiddelik in kennis gestel word. Ten einde weerstand te voorkom moet die volgende goue reëls nagekom word:

Gebruik slegs geregistreerde produkte.

Gebruik produkte slegs waarvoor hulle geregistreer is: raadpleeg die etikette vir die teikendiere sowel as die parasiete waarvoor produkte geregistreer is.

Lees altyd die etikette vir aanwysings, voorsorgmaatreëls en toedieningsdosisse.

Dien die volledige aanbevole dosis toe – 'n halwe dosis mag goedkoper wees, maar sal nie die verlangde effek lewer nie.

Key: OP = organophosphate, PY = pyrethroid, MC = macrocyclic lactone, SY = synergist, IGR = insect growth regulator, AM = amidine, OT = others

Product trade name	Oxpecker compatibility	Registration holder or distributor	Registration nr	Active ingredients & highest avian toxicity as LD50 in mg/kg	Target animals	Dosage	Parasites that will be killed/controlled
Acarins	Yes	Bayer AH	G1391	Flumethrin 2% PY >500	Dogs, puppies, horses, foals	100 ml/50 l	Ticks
Acatak	Yes	Novartis AH	G2422	Fluazuron 2.5% IGR >2,000	Beef cattle only	12 ml/100 kg	Blue ticks
Amidip 200	Yes	Virbac	G2601	Amitraz 20% AM 788	Cattle	1 l/800 l	Ticks, lice, mites
Amidip Max	Yes	Virbac	G3767	Amitraz 25%	Cattle	10 ml/10 l	Ticks, lice, Mange mites
Amipor	Yes	Virbac	G2058	Amitraz 1% AM 788 Cypermethrin 1% PY 2,000 Piperonyl butoxide 5% SY 2,250	Cattle, sheep, goats, game, ostriches	1 ml/10 kg	Karoo paralysis ticks, various flies, red lice, lice
Amiguard	Yes	Pfizer	G3512	Amitraz 12,5%	Cattle	1 l / 5 00 l	Ticks, lice, Mange mites
Animectin	Yes	DNAfrica	G2966	Ivermectin 0.08% MC 2,000	Sheep, goats	2.5 ml/10 kg	Itch mites, lice
Avotan	No	Intervet	G3745	Ivermectin 0,05% ML 84,6	Cattle	1 ml / 10 kg	Blue ticks
Bacdip Plus Aerosol	Yes	Bayer AH	G1249	Flumethrin 0.2% PY >500	Cattle	Topical spray	Ticks
Bantik Cattle dip	Yes	Cipla Agrimed	G3571	Cymiazol Cypermethrin	Cattle	1,5 l / 1000 l	Ticks, lice, screw worms, biting face & nuisance flies
Baytical	Yes	Bayer AH	G0489	Flumethrin 2% PY >500	Cattle, horses, dogs, poultry	10 ml/5 l	Ticks, stable flies, Northern fowl mites
Blitzdip Aerosol	Yes	Bayer AH	G1059	Cypermethrin 0.5% PY 2,000	Cattle, sheep, goats	Spot spray	Ticks, flies, sucking lice
Blitzdip Pour-on	Yes	Bayer AH	G1049	Cypermethrin 1% PY 2,000	Cattle, sheep, goats	1 ml/10 kg	Ticks, flies, sucking lice
Blowfly Dressing	No	Bayer AH	G0935	Cypermethrin 0.05% PY 2,000 Chlorfenvinphos 1% OP 16	Sheep	Direct application	Blowfly & biting flies
Bodyguard	Yes	Pfizer AH	G3424	Flumethrin 1% PY >500 Piperonyl Butoxide 5% SY 2,250	Cattle, sheep ostriches & game	10 ml / 100 kg	Ticks, Feather mites, red lice, tsetse flies
BuckGuard	No	Virbac	G3557	Abamectin 0,5 %	Antilope	1 ml / 10 kg	Sucking & biting lice, mange mites, blue ticks, horn flies
Cevamec	Yes	Novartis	G2811	Ivermectin 1% MC 2,000	Cattle, sheep	1 ml/50 kg	Blue ticks, mites, sucking lice
Clout Pour-On	Yes	AfriVet	G1447	Deltamethrin 1% PY 4,460	Cattle	1 ml/10 kg	Ticks, various flies, lice, blackfly
Cooperzon 30	No	AfriVet	G0821	Diazinon 30% OP 3.5	Sheep, goats, pigs	1 l/600 l	Ticks, mange & sheep scab mites, sheep lice & keds, blowfly maggots, pig mange mites
Coopers Redline	Yes	AfriVet	G3445	Flumethrin 1 % PY >500	Cattle, sheep ostriches & game	1 ml / 10 kg	Ticks, Feather mites, tsetse flies, karoo paralysis ticks
Coopers Supadip	No	AfriVet	G3349	Chlorfenvinphos 30% OP 16	Cattle, sheep, goats, dogs, horses	1 l / 600 l	Ticks, lice, mange mites, fleas, kedsblow flies
Coopers Zero Tick	Y	Afrivet	G1029	Cyhalothrin 5% PY >5,000	Cattle, sheep, goats	1 l / 100 l	Karoo paralysis, bont & red legged ticks, face & nuisance flies, midges, biting & sucking flies
Coopers Tick Grease	Y	Afrivet	G3667	Deltamethrin 0.1% PY 4,460 Piperonyl butoxide 0.05% SY 2,250	Cattle, sheep	Brush onto ticks	ticks
Crede-Ecto-Iymetraz	Yes	Experto Vet	G2528	Amitraz 25% AM 788	Cattle	1 l / 1000 l	Ticks, nuisance & biting flies, lice
Crede-Ecto-Cymetrin	Yes	Experto Vet	G2527	Cypermethrin 20% PY 2,000	Cattle, horses	1 l / 1000 l	Ticks, nuisance & biting flies, lice
Crede-Ecto-Perthrin	Yes	Experto Vet	G2489	Cypermethrin 0.25% PY 2,000 Piperonyl butoxide 1.25% SY Natural plant oils 0.025% Lanolin 1%	Horses, dogs	Ready to use paint-on or spray	House & stable flies, ticks, mosquitoes

Product trade name	Oxpecker compatibility	Registration holder or distributor	Registration nr	Active ingredients & highest avian toxicity as LD50 in mg/kg	Target animals	Dosage	Parasites that will be killed/controlled
Crede-Ecto-Tracypor	Yes	Experto Vet	G2668	Cypermethrin 1.5% PY 2,000 Amitraz 1.75% AM 788	Cattle	1 ml/10 kg	Ticks, House, stable & face flies, lice
Crede-Mintic Eximex	Yes	Experto Vet	G2787	Ivermectin 1% MC 2,000	Cattle, sheep, pigs	1 ml/50 kg	Blue ticks, sucking & biting lice, scab & mange mites, sand tampans
Cydetin 1% Injectable	Yes	Bayer AH	G1463	Moxidectin 1% MC 278	Cattle, sheep, ostriches	0.1 – 1 ml/ 5 kg	Lice, mange mites, sheep scab & itching mites, blue ticks
Cydetin 0.1% Oral	Yes	Bayer AH	G2388	Moxidectin 0.1% MC 278	Sheep, ostriches	2 ml/10 kg	Itch mites
Cydeti antiparasitic pouron for cattle	Yes	Bayer AH	G2678	Moxidectin 0.5% ML 278	Cattle	1ml / 10kg	Mange mites, red & blue lice, horn flie, blue ticks
Cydetin Eweguard & vaccine	Yes	Bayer AH	G2304	Moxidectin 0.5% MC 278 plus various antigens	Adult sheep & goats	1 ml/25 kg	Shshep scab & itch mites, sucking lice
Cydetin Eweguard & vaccin plus Se & Vit B12	Y	Bayer	G3541	Moxidectin 0.5% ML 278 Na Selenate 0.1% OT LT Vit B12 0/1% OT LT	Adult sheep & goats	1 ml/25 kg	Shshep scab & itch mites, sucking lice
Cydetin LA injectabe for sheep	Y	Bayer	G3449	Moxidectin 2% ML 278	Sheep	2ml/10kg	Sheep scab mite, sucking lice, itch mites
Cydetin plus fluke	Y	Bayer	G3219	Moxidectin 0.1% ML 278 Triclabendazole 0,05% OT LT	Sheep	2ml/10kg	Itch mites
Cydetin plus Tape oral drench	Y	Bayer	G3407	Moxidectin 0,1% ML 278 Praziquantel 1,88% OT LT	Sheep	1ml/5kg	Itch mites
Cydetin SE oral solution	Y	Bayer	G3408	Moxidectin 0.1% ML 278 Selenium 0.05% OT LT	Sheep	1ml/5kg	Itch mites
Cypermil Pour on	Y	Ourofino	G3012	Cypermethrin 5% PY 2,000	cattle	1ml/10kg	Ticks, sucking & biting lice
Cypermil Spray	Y	Ourofino	G3111	Cypermethrin 15% PY 2,000	Cattle	1 l / 1000 l	Ticks, sucking & biting lice
Dazzel NF	No	Bayer AH	G0582	Diazinon 30% OP 3.5	Sheep, goats, pigs, rabbits	1 l/600 l	Ticks, scab & mange mites, sheep keds, lice, blowfly
Deca Spot 0.5% Pour on	Y	Afrivet	G3433	Deltamethrin 0.5% PY 4,460 Piperonyl butoxide 2.5% SY 2,250	Cattle, sheep, goats	Cattle 1ml/10kg Sheep/goats 1ml/5kg	Ticks, karoo paralyti ticks, nuisance flies, stable, horn & cattle louse flies
Decatix 3	Yes	AfriVet	G1348	Deltamethrin 2..5% PY 4,460	Cattle, sheep, goats, ostriches	1 l/500 l	Ticks, lice, various flies, sheep scab mites, screw-worm, sheep skeds, blackfly, ostrich feather lice
Dectomax	Yes	Pfizer AH	G1726	Doramectin 1% ML 2,000	Cattle, sheep, pigs	1 ml/50 kg	Blue ticks, screw-worm, sand tampans, sucking lice, mange & mites, blowfly, sheep scab mites
Delete	Yes	Intervet SA	G2815	Deltamethrin 0.5% PY 4,460 Piperonyl butoxide 2% SY 2,250	Cattle, sheep, goats, game	1 ml/10 kg cattle 1 ml/5 kg sheep/goats	Ticks, Karoo paralysis ticks, biting & sucking lice, stable, horn, cattle louse & nuisance flies, black flies
Delete All	Yes	Intervet SA	G2837	Deltamethrin 0.5% PY 4,460 Amitraz 2% AM 788 Piperonyl butoxide 2% SY 2,250	Cattle, sheep, goats	1 ml/10 kg cattle 1 ml/5 kg sheep/goats	Ticks, Karoo paralysis ticks, biting & sucking lice, stable, horn, cattle louse & nuisance flies, black flies, mange mites
Delete X 5	Y	Intervet SA	G3279	Deltamethrin 5% PY 4,460	Cattle, sheep, goats, ostriches	250ml – 1 l /1000 l	Ticks, cattle lice, sheep scab mites, sheep & goat lice, shep keds, ostrich feather lice, African face, nuisance & biting flies
Delkol	Y	Intervet SA	G3550	Deltamethrin 1% PY 4,460	Cattle, sheep, goats, game	1ml/10kg	Ticks, nuisance & biting flies, lice, black flies., Karoo paralysis ticks
Deltab	Yes	Intervet SA	G2517	Deltamethrin 25% PY 4,460	Cattle, sheep, goats, ostriches	1 tablet/100 l	Ticks, lice, flies, screw worm, scab, keds, feather lice
Deltab Back-Pack	Yes	Intervet SA	G2518	Deltamethrin 25% PY 4,460	Cattle, sheep, goats, ostriches, dogs, horses	1 tablet /12..5 l	Ticks, cattle lice, sheep scab mites, ostrich faether lice, stable, house, cattle louse , horn & tsetse &

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							Stomoxys flies, black flies
Ecobash	Y	Afrivet	G3382	Cymiazol 17.5% ML 1,212 Cypermethrin 2.5% ML 2,000	Cattle	1.5 l / 1000 l	Ticks, biting, face & nuisance flies, lice, screw worm
Ecomectin 1% injectible solution	Yes	AfriVet	G2275	Ivermectin 1% MC 2,000	Cattle, sheep, pigs	Cattle & sheep 1 ml/50 kg Pigs 1,5ml/50kg	Sucking & biting lice, blue ticks, horn flies, mange mites
Ecomectin cattle pour on	Y	Afrivet	G3274	Ivermectin 0.5% ML 2,000	Sheep, cattle, pigs	1ml/10kg	Sucking & biting lice, sand tampan, blue ticks, screw worm, sheep scab mites, mange mites
Ecomectin Sheep Drench	Yes	AfriVet	G2630	Ivermectin 0.08% MC 2,000	Sheep, goats	2.5 ml/10 kg	Itch mites
Ectoline	Yes	Bayer AH	G2002	Flumethrin 0.5% PY >500 Cyfluthrin 0.5% PY >2,000	Cattle	1 ml/10 kg	Ticks
Ectomin	Y	Novartis	G3341	Cypermethrin (high – cis)	Cattle, sheep, goats, poultry	1 l / 1000 l	Ticks, nuisance & biting flies, cattle lice & keds, sheep & goat lice, poultry mites
Ektoban	Yes	Novartis AH	G0598	Cymiazol 17.5% AM 1,212 Cypermethrin 2.5% PY 2,000	Cattle	1.5 l/1,000 l	Ticks, biting, face & nuisance flies, lice, screw-worm
Equivet fly repellant for horses & dogs	Y	Stride Distributors	G2143	Cypermethrin 0.25% PY 2,000 Piperonyl botoxide 1.25% SY 2,250 Natural plant oils 0.025% OT LT Lanolin 1% OT LT	Cattle, horses	1 l / 1000 l	Ticks, lice, nuisance & biting flies
Equiworld Tick Dip	Y	Stride Distributors	G3148	Cypermethrin 20% PY 2,000	Sheep, goats	1 l / 400 l – 800 l	Lice, blowfly
Fleece Care	Yes	Intervet	G1743	Diflubenzuron 25% IGR 4,460	Sheep, goats	1 l / 400 l – 800 l	Lice, blowfly
Fluxacur NF	N	Intervet	G3202	Abamectin 0.2% ML 84,6 Triclabendazole 10% OT LT	Cattle, horses	1 l / 1000 l	Ticks, lice, biting & nuisance flies
Interdip 20	Y	Intervet	G3321	Cypermethrin 20% PY 2,000	Cattle, horses	1 l / 1000 l	Ticks, lice, biting & nuisance flies
Intervet Quadripel	Y	Cipla Agrimed	G3328	Cypermethrin 0,25% PY 2,000 Piperonyl butoxide 1,25% SY 2,250 Natural plant oils 0,025% OT LT Lanolin 1% OT LT	Horses, dogs	Ready to use or paint-on	House & stable flies, blackflies, ticks, mosquitoes
Ivermax 1% Injectible Solution	Y	Cipla Agrimed	G3582	Ivermectin 1% ML 2,000	Cattle, sheep, pigs	Cattle, sheep 1 ml/50 kg Pigs 1 ml/33 kg	Sucking & biting lice, mange mites, sand tampan, screw worms, blue ticks, sheep scab mites, Australian itch mites
Ivermax 1% Injectible solution + AD3E	Y	Cipla Agrimed	G3723	Ivermectin 1% ML 2,000 Vitamin A 5M IU OT LT Vitamin D3 40K IU OT LT Vitamin E 1K IU OT LT	Cattle, sheep	1ml/50kg	Sucking & biting lice, mange mites, sand tampan, screw worms, blue ticks, sheep scab mites, Australian itch mites
Ivermax 1% Injectible solution + minerals	Y	Cipla Agrimed	G3724	Ivermectin 1% ML 2,000 Cu 3.83mg OT LT Zn 0.06 mg OT LT Co 0.16mg OT LT Mn 2.49mg OT LT	Cattla, sheep	1ml/50kg	Sucking & biting lice, mange mites, sand tampan, screw worms, blue ticks, sheep scab mites, Australian itch mites
Ivermax sheep Drench	Y	Cipla Agrimed	G3579	Ivermectin 0.08% ML 2,000	Sheep	2.5ml/10kg	Australian itch mites
Ivermectina 1% Ourofino Injectable	Y	Ourofino	G2889	Ivermectin 1% ML 2,000	Cattle, sheep	1ml / 50kg	Sucking & biting lice, mange mites, sand tampan, screw worms, blue ticks, sheep scab mites, Australian itch mites
Ivomec Eprinex	Yes	Merial	G2628	Eprinomectin 0.5% ML 2,000	Beef & dairy cattle	1 ml/10 kg	Sucking & biting lice, mites, horn

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							flies, blue ticks
Ivomec Gold	Yes	Merial	G3080	Ivermectin 3.15% ML 2,000	Cattle	1 ml/50 kg	Sucking & biting lice, mange mites, sand tampans, screw worms, blue ticks
Ivomec Injection	Yes	Merial	G2329	Ivermectin 1% MC 2,000	Cattle, sheep, pigs, ostriches	Cattle 1 ml/50 kg Pigs 1ml/33kg Sheep 0.5ml/25kg Ostriches 1ml/50kg	Sucking & biting lice, sand tampans, blue ticks, sheep scab mites, mange mites, screw worms
Ivomec Maximiser CR Capsules (weaner sheep)	Yes	Merial	G2510	Ivermectin 80 mg/capsule ML 2,000	Weaner Sheep	1 Capsule/ 20 to 40 kg	Sheep scab mites, blowfly, keds
Ivomec Maximiser CR Capsules (adult sheep)	Yes	Merial	G2509	Ivermectin 160 mg/capsule ML 2,000	Adult Sheep	1 Capsule/ 40 to 80 kg	Sheep scab mites, blowfly, keds
Ivomec Premix for swine	Y	Merial	G1960	Ivermectin 0.6% ML 2,000	Pigs	Follow premix instructions	Lice, mange mites
Ivomec Super	Y	Merial	G2629	Ivermectin 1% ML 2,000 Chlorsulon 10% OT LT	Cattle, sheep	Cattle 1ml/50kg Sheep 0.5ml/25kg	Sucking & biting lice, mange mites, sand tampans, screw worms, blue ticks, sheep scab mites, Australian itch mites
Ivotan	Y	Intervet SA	G2858	Ivermectin 1% ML 2,000	Cattle, sheep, pigs	Cattle, sheep 1ml/50kg	Sucking & biting lice, mange mites, sand tampans, screw worms, blue ticks, sheep scab mites,
Ivotan oral	Y	Intervet SA	G3393	Ivermectin 0,08% ML 2,000	Sheep, goats	2.5ml/10kg	Sucking & biting lice, mange mites, sand tampans, screw worms, blue ticks, sheep scab mites, itch mites
Karbadip	Yes	Bayer AH	G1291	Carbaryl 50% OT >1,000	Cattle, horses, chickens, dogs	3 kg/1,000 l	Ticks, red mites, lice, fleas, fleas
Langa-Dip	Yes	Elangeni AH	G3515	Cypermethrin 20% PY 2,000	Cattle, sheep	1 l/1,000 l	Ticks, Karoo paraylis ticks, biting & sucking lice, nuisance & biting flies, sheep scab mites, blowflies
Langa First-Year Drench	No	Elangeni AH	G3503	Abamectin 0,08% ML 84,6 Praziquantel 1,5% OT LT	Sheep, lams, goats, kids, calves, ostriches	2.5ml/10kg	Australian itch mites
Langa Max LA	Yes	Elangeni AH	G3507	Ivermectin 1% ML 2,000	Sheep, cattle, pigs	Cattle, sheep 1 ml/50kg Pigs 1 ml/33kg	Sheep scab mites, sucking & biting lice, mange mites, Australian itch mites, screw-worms, blue ticks, sand tampans
Langa MEC	Yes	Elangeni AH	G3500	Ivermectin 1% ML 2,000	Cattle, sheep, pigs	Cattle, sheep 1 ml/50kg Pigs 1 ml/33kg	Sheep scab mites, sucking & biting lice, mange mites, Australian itch mites, screw-worms, blue ticks, sand tampans
Langa Pour-Line	Yes	Elangeni AH	G3501	Amitraz 1% AM 788 Cypermethrin 1% PY 2,000 Piperonyl butoxide 5% SY 2,250	Cattle, sheep, goats, game	Cattle, game 10ml/100kg Sheep, goats 2-4ml/10kg	Ticks, Karoo paralysis ticks, house, stable & face flies, biting & sucking lice, red lice
Langa Super MEC	Yes	Elangeni AH	G3502	Ivermectin 1% ML 2,000 Chlorsulon 10% OT LT	Cattle, sheep, goats	1ml/50kg	Sucking & biting lice, mange mites, sheep scab mites, Australian itch mites, sandtampans, Blue ticks, screw-worms
Langa Tablets for Sheep and Goats	No	Elangeni AH	G3510	Abamectin 0.8% ML 84,6	Sheep, goats	1 tablet/50kg	Australian itch mites

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MaxiCyp 20%	Yes	Cipla Agrimed	G3656	Cypermethrin 20% PY 2,000	Cattle, horses	1 l/1,000 l	Ticks, nuisance & biting flies, lice
Maxipour	Yes	Cipla Agrimed	G3567	Flumethrin 1% PY >500	Cattle, sheep, ostriches, game	1 ml/10 kg	Ticks, tsetse flies, feather mites
MBD Amitraz 12,5% EC	Yes	Ceva AH SA	G3437	Amitraz 12,5% AM 788	Cattle	2 l/1,000 l	Ticks, lice, mange mites
MBD Cyperdip	Yes	Ceva AH SA	G3471	Cypermethrin 20 % PY 2,000	Cattle, sheep, goats	1 l/1,000 l	Ticks, lice, nuisance & biting flies, screw-worms, sheep scab mites
MBD Cypertaz Pour-on	Yes	Ceva AH SA	G3472	Amitraz 17,5% AM 788 Cypermethrin 15% PY 2,000	Cattle	10 ml/100 kg	Ticks, house, stable & face flies, lice
MBD Iver 1% Injection	Yes	Ceva AH SA	G2805	Ivermectin 1% ML 2,000	Cattle, sheep, pigs	Cattle, sheep 1 ml/50 kg Pigs 1 ml/33 kg	Sucking & biting lice, mange mites, sheep scab mites, Australian itch mites, sandtampans, Blue ticks, screw-worms
MBD Iver Pour-on	Yes	Ceva AH SA	G2807	Ivermectin 1% ML 2,000	Cattle	5 ml/100 kg	Sucking & biting lice, mange mites, blue ticks
MBD Iver Super	Yes	Ceva AH SA	G3266	Ivermectin 1% ML 2,000 Chlorsulon 10% OT LT	Cattle, sheep, goats	1 ml/50 kg	Sucking & biting lice, mange mites, sheep scab mites, Australian itch mites, sandtampans, Blue ticks, screw-worms
Milbitraz LS Powder	Yes	Bayer AH	G2385	Amitraz 23.75% AM 788 Ca-Hydroxide 75% OT	Cattle	1 kg/1,000 l	Ticks, mites, lice
Milbitraz Spray Dip	Yes	Bayer AH	G2084	Amitraz 12.5% AM 788	Cattle	1 kg/500 l	Ticks, mange mites, lice
Milbitraz TR	Yes	Bayer AH	G2594	Amitraz 23,75% AM 788	Cattle	1 kg/5,000 l	Ticks, lice
Milbitraz WP	Yes	Bayer AH	G2085	Amitraz 23,75% AM 788	Cattle	1 kg/1,000 l	Ticks, mange mites, lice
Mira Flygo for Horses	Yes	Bayer AH	G1145	Cypermethrin 0,25% PY 2,000 Butoxypoly propylene glycol 10% OT LT	Horses	Apply over horses coats	House & stable flies
Nokalt	Yes	Ourofino AH	G3021	Amitraz 12,5% AM 788	Cattle	1 l/500 l	Ticks, lice, mange mites
Noromectin Injection	Yes	Norbrook Laboratories	G2734	Ivermectin 1% ML 2,000	Cattle, sheep, pigs	1 ml/50 kg	Blue ticks, cattle & tick mange mites, lice, screw worms
Noromectin Pour-on	Yes	Pharmacia	G2735	Ivermectin 0.5% ML 2,000	Cattle	1 ml/10 kg	Blue ticks, cattle mange mites, lice, screw worms
Nortix NF	No	Intervet SA	G3537	Chlorfenvinphos 30% OP 16	Cattle	1 l/600 l	Ticks
PAB-NF	No	Bayer AH	G0961	Propetamphos 0.14% OP 197	Sheep	Apply onto crutch	Blowfly
Paracide	Yes	Pfizer AH	G0791	Alphamethrin 7% PY 10,000	Cattle, sheep, goats	1 l/1,000 l	Ticks, Karoo paralysis ticks, various flies, lice, blackfly, tampanns
Paramax 1% Injectable Solution	Yes	Schering Plough AH	G3083	Ivermectin 1% ML 2,000	Cattle, sheep, pigs	Cattle 1 ml/50kg Sheep, 5ml/25kg Pigs 1ml/33kg	Sucking & biting lice, mange mites, sheep scab mites, Australian itch mites, sandtampans, Blue ticks, screw-worms
Pouracide NF	Yes	Pfizer AH	G0971	Alfamethrin 0.5% PY 10,000 Cypermethrin 1% PY 2,000	Cattle	1 ml/10 kg	Ticks, various flies, lice, tampanns

Product trade name	Oxpecker compatibility	Registration holder or distributor	Registration nr	Active ingredients & highest avian toxicity as LD50 in mg/kg	Animals	Dosage	Parasites that will be killed/controlled
				Tetrachlorvinphos 2% OP >1,500 Piperonyl butoxide 7.5% SY 2,250			
Prodip CYP 20%	Yes	Virbac	G2311	Cypermethrin 20% PE 2,000	Cattle, sheep	1 l/1,000 l	Ticks, lice, Karoo paralysis ticks, red lice
Qualimectin	Yes	AfriVet	G2357	Ivermectin 1% ML 2,000	Cattle, sheep, pigs	1ml/50 kg	Blue ticks, scab, mites
Qualitraz 250	Yes	Janssen	G2512	Amitraz 25% AM 788	Cattle	1 l/1,000 l	Ticks, mange mites, lice
Shoo-Fly Spray	Yes	Kyron Laboratories	G2777	Permethrin 1% PY >3,000 Esbiothrin 0,35% PY >5,000 Piperonyl butoxide 1,5% SY 2,250 Aromatic oils OT LT	Dogs, horses	Spray on coat	Biting & nuisance flies
Solution 3,5% LA	No	Intervet SA	G3689	Ivermectin 2,25% ML 2,000 Abamectin 1,25% ML 84,6	Cattle	1 ml/50 kg	Blue ticks
Stopatik	Yes	Virbac RSA	G1431	Cypermethrin 2% PY 2,000 Piperonyl butoxide 8% SY 2,250	Cattle, sheep	1 ml/10 kg	Ticks, house flies, stable flies, face flies, Karoo paralysis ticks
Sumiplus	No	Bayer AH	G1181	Chlorfenvinphos 30% OP 16 Esfenvalerate 2.2% PY 381	Cattle, sheep, goats	1 l/1,000 l	Ticks, Karoo paralysis ticks, red lice, flies, mites, keds, blowfly, lice
Supatraz 25%	Yes	Cipla Agrimed	G3581	Amitraz 25% AM 788	Cattle, sheep, goats	1 l/1,000 l	Ticks, itch & mange mites, lice, sheep scab mites, Australian itch mites
Supatraz Cattle Pour-on	Yes	Cipla Agrimed	G3649	Amitraz 2% AM 788	Cattle	1 ml/10 kg	Ticks
Supona 30 Cattle Dip	No	Bayer AH	G1284	Chlorfenvinphos 30% OP 16	Cattle, sheep, goats	1 l/600 l	Ticks, Karoo paralysis ticks, lice, blowfly
Supona Aerosol	No	Bayer AH	G411	Chlorfenvinphos 0.5% OP 16 Dichlorvos 0.83% OP 24 Gention violet 0.1% OT	Cattle, horses, sheep, goats, dogs	Spot treatment	Blowfly maggots, ticks
Taktic Cattle Spray	Yes	Intervet SA	G2535	Amitraz 12.5% AM 788	Cattle, sheep, goats, ostriches	1 l/1,000 l	Ticks, lice, mange mites, sheep scab mites, itch mites, sheep lice, keds
Taktic LS Cattle Dip	Yes	Intervet SA	G2536	Amitraz 23,75% AM 788 Calcium hydroxide 75% OT LT	Cattle	1 kg/1,000 l	Ticks, lice, mange mites
Taktic Pour-On	Yes	Intervet SA	G2927	Amitraz 2% AM 788	Cattle	1 ml/10 kg	Ticks
Taktic Pig Pour-on	Yes	Intervet SA	G2574	Amitraz 1% AM 788	Pigs	5 ml/10 kg	Mange mites, ticks
Tacttic TR	Yes	Intervet SA	G2537	Amitraz 23.75% AM 788	Cattle, sheep, goats	1,43 kg/1,000 l	Ticks, cattle lice, sheep mites, itch mites, goat mange mites
Tacttic Wettable Powder Cattle Spray	Yes	Intervet SA	G2538	Amitraz 23,75% AM 788	Cattle	100 g/100 l	Ticks, lice, mange mites
Tick Dressing 'S'	No	Bayer AH	G434	Chlorfenvinphos 0.3% OP 16	Cattle	Apply to infested areas	Ticks
Tick Grease	Yes	Bayer AH	G1104	Cypermethrin 0.025% PY 2,000	Cattle	Apply to infested areas	Ticks
Tick & Maggot Oil Plus	No	Bayer AH	G1494	Chlorfenvinphos 1% OP 16 Cypermethrin 0,1% PY 2,000 Pine oil 4% OT LT	Cattle, sheep, goats	Apply to infested areas	Ticks

Product trade name	Oxpecker compatibility	Registration holder or distributor	Registration nr	Active ingredients & highest avian toxicity as LD50 in mg/kg	Target animals	Dosage	Parasites that will be killed/controlled
Tiguvon Spotton	No	Bayer AH	G145	Fenthion 20% OP 7.2	Cattle, sheep, goats, horses	2.5 ml/100 kg	Ticks, flies, screw-worm, lice
Triatix 125 cattle spray	Yes	AfriVet	G3189	Amitraz 12.5% AM 788	Cattle	1 l/500 l	Ticks, mites, lice
Triatix 250 cattle spray	Yes	AfriVet	G3190	Amitraz 25% AM 788	Cattle	1 l/1,000 l	Ticks, mites, lice
Triatix 500 LS Cattle Dip	Yes	AfriVet BM	G3496	Amitraz 50% AM 788	Cattle	500g/1,000 l	Ticks, mange mites, lice
Triatix 500 TR Cattle, Sheep & Goat Dip	Yes	AfriV BM	G3256	Amitraz 50% AM 788	Cattle, sheep, goats	100g/1,000 l	Ticks, itch & mange mites, lice, sheep scab mites
Triatix Cattle Pour-on	Yes	AfriVet BM	G3444	Amitraz 2% AM 788	Cattle	1 ml/10 kg	Ticks
Triatix 2% Pig Pour-on	Yes	AfriVet BM	G3381	Amitraz 2% AM 788	Pigs	2,5 ml/10 kg	Mange mites, lice
Triatix Plus Pour-on	Yes	AfriVet BM	G3434	Amitraz 1,5% AM 788 Deltamethrin 0,5% PY 4,460 Piperonyl butoxide 3% SY 2,250	Cattle, sheep, goats	Cattle 1 ml/10kg Sheep, goats 1 ml/5 kg	Ticks, stable, horn, cattle house & nuisance flies, biting & sucking lice, mange mites, blackflies
Triton	Yes	Merial	G3565	Albendazole 0,02% OT LT Levamisole 0,03% OT LT Ivermectin 0,088% ML 2,000 Cobalt 0,176% OT LT Selenium 0,04% OT LT	Sheep	1 ml/4 kg	Australian itch mites
Triton Tape	Yes	Merial	G3566	Albendazole 0,02% OT LT Levamisole 0,03% OT LT Ivermectin 0,088% ML 2,000 Cobalt 0,176% OT LT Selenium 0,04% OT LT Praziquantel 0,015% OT LT	Sheep	1 ml/4 kg	Australian itch mites
Vetrazine	Yes	Novartis AH	G0525	Cyromazine 50% IGR 2000	Sheep	1 kg/500 l	Blowflies
Vetrazine	Yes	Novartis AH	G1397	Cyromazine 10% IGR 2000	Sheep	1 ml/kg	Blowflies
Virbamax First Drench	No	Virbac RSA	G3084	Abamectin 0,08% ML 84,6	Sheep, lambs, goats, kids, calves	2,5 ml/10 kg	Australian itch mites
Virbamax LV	No	Virbac RSA	G2782	Abamectin 0,2% ML 84,6	Sheep, goats	1 ml/10 kg	Australian itch mites
Virbamax Premix	No	Virbac RSA	G3122	Abamectin 0.6% MC 84.6	Pigs	1.67 g/10 kg	Mage, lice
Virbamec	Yes	Virbac RSA	G2588	Ivermectin 1% MC 2,000	Cattle, sheep, pigs	1 ml/50 kg	Blue ticks, scab, mites
Virbamec L	Yes	Virbac RSA	G3269	Ivermectin 1% ML 2000 Chlorsulon OT LT	Cattle, sheep, goats	1 ml/50 kg	Sucking & biting lice, mange mites, sheep scab mites, Australian itch mites, sandtampans, Blue ticks, screw-worms
Virbamec LA	Yes	Virbac RSA	G2885	Ivermectin 1% MC 2,000	Cattle, sheep, pigs	1 ml/50 kg cattle & sheep;	Lice, flies, mites, sandtampans, Blue ticks, scab, cattle srew worms

Product trade name	Oxpecker compatibility	Registration holder or distributor	Registration nr	Active ingredients & highest avian toxicity as LD50 in mg/kg	Target animals	Dosage	Parasites that will be killed/controlled
						1 ml/33 kg pigs	
Wipe-out	Yes	AfriVet BM	G1434	Deltamethrin 0.5% PY 4,460	Sheep, goats	2-4 ml/10 kg	Ticks, Karoo paralysis ticks, blowfly, red lice, keds
Wound Aerosol NF	No	Bayer AH	G0955	Dichlorophen 1% OT 1000 Propetamphos 0,25% OP197	Cattle, sheep	Apply to infested areas	Nuisance flies, blowfly maggots
Wound Oil NF	No	Bayer AH	G0956	Dichlorophen 1% OT 1000 Propetamphos 0,25% OP197 Pine Oil 3% OT LT	Cattle, sheep	Apply to infested areas	Nuisance flies, blowfly maggots
Wound Sept Plus Aerosol	Yes	Virbac	G1521	Cypermethrin 0.0125% PY 2,000 Dichlorophen 0.015% OT >1,000 Chlorocresol 0.5% OT Gentian violet 0.15% OT	Cattle, sheep, goats, horses, pigs, dogs	Apply to wounds	Blowfly
Zapp Pour-on for Sheep & Goats	Yes	Bayer AH	G2335	Triflumuron 48% IGR 561	Sheep, goats	5 ml/10 l	Lice, blowfly
Zeramec	No	Virbac RSA	G3660	Ivermectin 1% ML 2000 Zeranol 1% EDR effects	Cattle	1 ml/50 kg	Sucking & biting lice, mange mites, screw-worms, sand tampans, blue ticks
Zapp Pour-on	Yes	Bayer AH	G2926	Triflumuron 2.5% IGR 561	Sheep, goats	10 ml/10 kg	Lice, blowfly
Zeropar	No	Bayer AH	G1152	Chlorfenvinphos 30% OP 16 Alfamethrin 3% PY 10,000	Cattle, sheep, goats	1 l/ 1,000 l	Ticks, Karoo paralysis ticks, mites, lice, keds, flies, screw-worm
Zipdip	No	Intervet	G0381	Triazophos 40% OP 4.2	Sheep, goats, angora, pigs	0.3 l/1,000 l	Ticks, Karoo paralysis ticks, lice, keds, mites

CONSULT THE WILDLIFE CONFLICT PREVENTION GROUP FOR SPECIALIST ADVICE

WCPG OPERATION OXPECKER INFORMATION LINE: 082 325 6578

NASHUA WILDLIFE CONFLICT PREVENTION GROUP 24 HRS EMERGENCY HELPLINE: 082 802 6223

WILDLIFE CONFLICT PREVENTION GROUP OFFICE NUMBER: 011 486 1102

Cattle farmers

Consult your agrochemical representative (only AVCASA accredited or ACDASA accredited) for a proper ectoparasite management programme. This should consist of injectable macrocyclic products (ivermectin types), pyrethroids (pour-ons, plunge dips and sprays), amidines (amitraz types) as well as insect growth regulators (where permitted) that are used on a rotational basis to avoid parasite resistance.

PLEASE TAKE NOTE THAT CERTAIN PYRETHROIDS ARE EXTREMELY TOXIC TO DUNG BEETLES WHILE MOST MACROCYCLIC LACTONES ARE GENERALLY TOXIC TO BOTH DUNG BEETLES AND EARTHWORMS.

YOU HAVE TO USE YOUR ECTOPARASITICIDES WITH GREAT CAUTION!

Sheep and goat farmers

Use the new insect growth regulators such as triflumuron, cyromazine and diflubenzuron as blowfly and lice remedies – this is your contribution to prevent the poisoning of cranes and vultures.

Game farmers

There are only two products registered for ectoparasite control on game: Drastic Deadline and Amipor. No other products may be used! The Wildlife Conflict Prevention Group advises game farmers *against* the dipping of free roaming game as it will eventually comprise animals' resistance to ectoparasites.

CONSULT THE MANUFACTURERS BEFORE APPLYING DIPS TO RHINOS AND ZEBRAS!

DISCLAIMER

THE WILDLIFE CONFLICT PREVENTION GROUP AND THE ENDANGERED WILDLIFE TRUST WILL NOT BE HELD RESPONSIBLE FOR ANY CONDITIONS THAT MAY ARISE FROM THE USE OF ANIMAL REMEDIES LISTED IN THIS BROCHURE. IT REMAINS THE SOLE RESPONSIBILITY OF THE LANDOWNER TO APPLY PRODUCTS STRICTLY ACCORDING TO THE INSTRUCTIONS PROVIDED ON THE LABELS OF SUCH PRODUCTS.

RAADPLEEG DIE KONFLIK VOORKOMINGS GROEP VIR SPESIALISADVIES

KVG OPERASIE RENOSTERVOËL INLIGTINGSLYN: 082 325 6578

NASHUA KONFLIK VOORKOMINGS GROEP 24 uur NOODHULPLYN: 082 802 6223

KONFLIK VOORKOMINGS GROEP KANTOORNOMMER: 011 486 1102

Beesboere

Raadpleeg u landbouchemiese verteenwoordiger (slegs AVCASA geakkrediteerd of ACDASA geakkrediteerd) vir 'n goeie ektoparasiet bestuursprogram. Dit behoort die inspuibare makrosikliese produkte (avermektien tipes), peritroïede (opgietmiddels, dompeldippe en spuitmiddels), amidiene (amitras tipes) asook insekgroeireguleerders (waar toegelaat) in te sluit wat op 'n roterende basis gebruik word om parasietweerstand te voorkom.

NEEM ASSEBLIEF KENNIS DAT SEKERE PERITROÏEDE UITERS GIFTIG VIR MISKRUIERS IS TERWYL DIE MEESTE MAKROSIKLIESE LAKTONE OOR DIE ALGEMEEN GIFTIG VIR BEIDE MISKRUIERS EN ERDWURMS IS. U MOET U EKTOPARASITISIEDE MET GROOT OMSIGTIGHEID GEBRUIK!

Skaap- en bokboere

Gebruik die nuwe insekgroeireguleerders soos triflumuron, siromasien en diflubensuron as brommer- en luisbeheermiddels. Dit is u bydrae tot die voorkoming van kraanvoël- en aasvoëlvergiftiging.

Wildboere

Daar is slegs twee produkte wat vir ektoparasietbeheer op wild geregistreer is: Drastic Deadline en Amipor. Geen ander produkte mag gebruik word nie! Die Konflik Voorkomings Groep beveel wildboere aan om vrylopende wild *nie te doseer nie* omdat dit uiteindelik daartoe sal lei dat diere se natuurlike weerstand teen ektoparasiete ingeboet sal word.

RAADPLEEG DIE VERVAARDIGERS VOORDAT DIPSTOWWE OP RENOSTERS EN KWAGGAS AANGEWEND WORD!

VRYWARING

DIE KONFLIK VOORKOMINGS GROEP EN DIE TRUST VIR BEDREIGDE NATUURLEWE AANVAAR GEEN AANSPREEKLIKHEID VIR ENIGE SITUASIE WAT MAG ONTSTAAN AS GEVOLG VAN DIE AANWENDING VAN DIEREPRODUKTE WAT IN HIERDIE BROSJURE VERVAT IS NIE. DIT BLY DIE UITSLUITLIKE VERANTWOORDELIKHEID VAN DIE GRONDEIENAAR OM PRODUKTE STRENG VOLGENS DIE AANWYSINGS SOOS IN DIE PRODUKETIKETTE VERVAT, TE VOLG.

OXPECKERS IN A CHANGING ENVIRONMENT

Two of Africa's most interesting birds, the Yellow-billed Oxpecker *Buphagus africanus* and Red-billed Oxpecker *Buphagus erythrorhynchus* have a long and precarious association with mankind. These birds are associated with large animals such as the artiodactyls (antelopes, bovids) and perissodactyles (horses, rhinoceroses) that provide a food source of ticks in ample supply to sustain the birds. This symbiotic relationship between the large beasts of Africa and the two oxpecker species has been in existence for millennia and was nearly lost in the 20th century due to man's intervention in the natural relationship between predator and prey.

Cattle that were mostly bred from the European *Bos taurus* were brought into Africa by European explorers and settlers. Having been bred in Europe with its mild climate the *Bos taurus* descendents were not prepared for the 'small predators' of Africa. Pests like the Tsetse Fly, Blackfly and various ticks took their toll of the European cattle. Cattle that belonged to the people of Africa were left to a process of natural selection and were basically immune to most of the pests and parasites of Africa while the European breeds fell prey to the relentless pounding of these small creatures.

Oxpeckers made no distinction between the cattle and the wild African animals that carried their food and the birds flocked to cattle herds to cash in on the abundance of ticks and their larvae. However, unlike the wild animals that had very good resistance against ticks and tick borne diseases, European cattle breeds had virtually no resistance and despite the service of oxpeckers cattle suffered from heavy tick loads and tick borne diseases. Constant improvement of cattle breeds through selection for larger and better animals did the cattle no good and compromised their resistance to ticks and their associated parasites even further.

With the development of pesticides the world faced an era of unprecedented agricultural development due to manmade remedies that could manage most pests found on crops and animals. In the middle of the 20th century cattle dips developed rapidly from arsenical dips, through organochlorine dips and thence onto the organophosphate dips towards the pyrethroids, amidines and macrocyclic lactones that are currently widely used around the world. Animal dips were nothing less than a total disaster for the oxpeckers and other beneficial creatures. Arsenical, organochlorine and organophosphate dips had a huge impact on oxpeckers to the extent that the Yellow-billed Oxpecker became extinct in South Africa during the former half of the 20th century while the Red-billed Oxpecker barely hung on in a few areas.

The introduction of pyrethroid and amidine acaricides brought new hope for the oxpeckers. These chemicals have a very low toxicity to birds in general and were certainly more acceptable than the acutely toxic organophosphates. Yellow-billed Oxpeckers recolonised the northeastern parts of South Africa late in the 20th century and are now well represented in the Kruger National Park. Red-billed Oxpeckers are more widely distributed and are found in the Limpopo, Northwest, Mpumalanga, Northern Cape, Gauteng, Eastern Cape and KwaZulu-Natal provinces of South Africa. Numbers are far from what it used to be before the advent of chemical tick control but there seems to be hope for the future of these useful birds.

Oxpeckers can be one of the farmer's greatest natural allies on game and cattle farms. It is very important to offer the birds the best chance of survival by managing tick infestations with the correct products and management protocols. Read this entire document before proceeding with chemical tick control and when in doubt phone the Wildlife Conflict Prevention Group for advice.

RENOSTERVOËLS IN 'N VERANDERENDE OMGEWING

Twee van Afrika se mees interessante voëls, die Geelbekrenostervoël *Buphagus africanus* en die Rooibekrenostervoël *Buphagus erythrorhynchus* het 'n lang en onsekere verbintenis met die mens. Hierdie voëls word in assosiasie met groot diere soos die artiodaktiele (antilope, wilde beeste) en perissodaktiele (perde, renosters) gevind wat die voëls se voedselbron van bosluise in genoegsame voorraad dra om hulle te onderhou. Hierdie simbiotiese verwantskap tussen die groot diere van Afrika en die twee Renostervoëls bestaan reeds deur eeue heen, maar is amper in die 20e eeu vernietig as gevolg van die inmenging deur die mens in die natuurlike verwantskap tussen die voëls en hulle prooi.

Beeste wat meestal uit die Europese *Bos taurus* geteel is, is uit Europa deur pioniers en setlaars na Afrika gebring. Omdat die diere in die matige klimaat van Europa geteel is, was hierdie *Bos taurus* afstammeling nie opgewasse teen die 'klein roofdiertjies' van Afrika nie. Plae soos die Tsetsevlieg, Riviermuggie en verskeie bosluise het hulle tol van die Europese beeste geëis. Beeste wat aan die mense van Afrika behoort het is aan hulleself oorgelaat sodat natuurlike seleksie weerstandbiedende diere geproduseer het, terwyl die Europese rasse swaar onder die aanslag van die plae en parasiete van Afrika gebuk gegaan het.

Vir renostervoëls was die beeste niks anders as die wilde Afrikadiere wat hulle kos verskaf het nie en hulle het op die beestroppe met hul bosluise en larwes toegesak om die voedselbron te benut. Ongeag die diens wat die Renostervoëls gelewer het, het die Europese beeste wat nie so 'n goeie weerstand teen bosluise en bosluisoorgedraagde siektes soos die wilde diere gehad het nie, aan hewige bosluisbesmettings en bosluisoorgedraagde siektes gely. Voortdurende seleksie vir beter en groter diere vir verbeterde produksie het die beeste se weerstand verder verswak en glad nie tot gesonder kuddes bygedra nie.

Die ontwikkeling van plaagdoders het die wêreld in 'n tydperk van ongekende landbou-ontwikkeling ingestuur as gevolg van die mensgemaakte middels wat meeste plae op oeste en diere kon beheer.

Gedurende die middel van die 20e eeu het dieredipstowwe vinnig ontwikkel. Arseenmiddels is deur organochloorprodukte en organofosfate vervang en uiteindelik het die peritroïede, amidiene en makrosikliese laktone gevolg wat tans regoor die aarde gebruik word. Dieredipstowwe het niks anders as 'n fiasko vir renostervoëls ontketen nie. Arseen-, organochloor- en organofosfaatdipstowwe het renostervoëls swaar getref en ander nuttige spesies het ook daaronder gelei. Die Geelbekrenostervoël het reeds vroeg in die eerste helfe van die 20e eeu in Suid-Afrika uitgesterf, terwyl die Rooibekrenostervoël net-net in 'n paar areas oorleef het.

Die ontwikkeling van peritroïed- en amidienakarisiede het nuwe hoop vir renostervoëls laat opvlam. Hierdie chemikalieë het 'n baie lae toksisiteit vir die voëls en is beslis meer aanvaarbaar as die akuit-giftige organofosfate. Geelbekrenostervoëls het reeds die noordoostelike dele van die land inbeweeg en word redelik algemeen in die Nasionale Krugerwildtuin aangetref. Rooibekrenostervoëls is wyer verspreid en word in die Limpopo, Noordwes, Mpumalanga, KwaZulu-Natal, Gauteng, Oos-Kaap en die Noord-Kaap provinsies van Suid-Afrika aangetref. Getalle is baie minder as wat dit was voordat die chemiese beheer van bosluise begin het, maar dit wil voorkom asof daar hoop vir die toekoms van hierdie nuttige voëls is.

Renostervoëls kan een van wild- en beesboere se grootste natuurlike vennote wees. Dit is uiters belangrik om die voëls die beste kans op oorlewing te gun deur bosluisbesmettings korrek te bestuur met behulp van die korrekte produkte en bestuursbeginsels. Lees hierdie hele dokument sorgvuldig deur voordat chemiese bosluisbeheer aangepak word en raadpleeg die Konflik Voorkomings Groep vir inligting as daar enige twyfel oor iets bestaan.

ECOLOGY, BIOLOGY AND BREEDING OF OXPECKERS

Characteristic	Red-billed Oxpecker	Yellow-billed Oxpecker
Iris and eye	Yellow to red in adult birds and brown in juvenile birds. A highly conspicuous broad yellow wattle is found around the eye in adult birds. This is the most important characteristic of the species.	Orange to scarlet in adult birds and brown in juvenile birds. Very inconspicuous narrow yellow eye wattle present.
Bill shape and colour	Adults have bright scarlet bills, immature birds have dark olive bills with yellowish centre and orange gape at first, turning all dark with ageing. The bill reddens at 4 months and is fully red at 7 months.	Adult birds have broad yellow-based bills with red tips. Broad yellow flanges expand down both sides of the bill. No such expansion is found in the Red-billed Oxpecker. Young birds have dusky yellowish bills. No orange gape visible.
Upperparts	Head, throat, back and uppertail brown with rump slightly paler. Immature birds are more sooty brown than adults. The adult plumage is acquired at about 6 months.	Head, throat, back and uppertail brown, shading to paler yellowish buff on the rump. The pale rump is diagnostic. Immature birds have a shorter tail and a darker brown throat than adults. The upperparts are also finely barred with black.
Underparts	Breast and abdomen creamy buff. Underwing dark brown.	Breast and abdomen pale yellowish-buff. Underwing dark brown.
Sexes	Sexes alike.	Sexes alike.
Distribution	From Ethiopia to South Africa. In southern Africa found mainly towards the northeast from Zululand to Limpopo; also in Botswana, Zimbabwe and Mozambique. Strong population in northern and western Limpopo valley. Formerly also found in eastern Free State, Lesotho lowlands and Eastern Cape up to Grahamstown. Small populations in Northwest, Northern Cape, Gauteng and Eastern Cape.	Africa, south of the Sahara desert and western Africa. In South Africa confined to the top third of the Kruger National Park, the Hluhluwe-Umfolozi complex and stragglers to Mkuzi Game Reserve. Fragmented populations are also found in a broad band along the western and northern Limpopo River basin.
Habitat	Savannah and bushveld areas with a mean average rainfall of more than 400 mm per annum.	Dry deciduous woodland and savannah below 1,900 m above sea level.
Status in South Africa	Listed as a near-threatened species	Was listed as extinct as a breeding species in 1910. It recolonised the country in 1979 from Zimbabwe. The species is considered vulnerable in South Africa. Current numbers are estimated at between 150 and 300 breeding pairs.
Habits	Is found in small flocks of 2 - 6 birds during the breeding season and up to 50 birds during the non-breeding season. The Red-billed Oxpecker forages on a variety of wild and domestic animals where it clambers around the host in search of ticks and other ectoparasites. The bird is easily alarmed when approached and may stare at the intruder from the far side of the host animal, occasionally gathering on a few animals where loud hissing and croaking vocalisations are made. Outside the breeding season the birds roost in reedbeds, on electric pylons, microwave towers and various other tall structures.	Is found in small groups during the breeding season and up to 20 birds outside the breeding season. The Yellow-billed Oxpecker also forages on a variety of wild and domestic animals, although larger animals are preferred. They spend most of the day on their mammalian hosts in search of ectoparasites. The stiff tail is used as a prop to balance the bird while searching for food. These birds are also easily alarmed and display the same behaviour as the Red-billed Oxpecker when an intruder is spotted. The Yellow-billed Oxpecker sometimes roosts on the host animal.
Feeding strategy	The bill is adapted to perform a scissor-like action. The mammalian host's hair is thoroughly combed as they search for food. They seldom pluck at prey.	The heavier and stronger bill of this species is adapted for plucking. Ectoparasites are visually detected and detached by using the bill.
Main food types	With the scissor-like action the Red-billed Oxpecker feeds on tick eggs, larvae, nymphs and adult ticks (mainly <i>Boophilus</i> spp.) and other ectoparasites. It also feeds on dry skin flakes, earwax and wound tissue, often ridding fresh wounds of parasite eggs and larvae. It may also hawk insects from the host's back.	Feeds on ticks (notably <i>Amblyomma hebraeum</i> and <i>Rhipicephalus appendiculatus</i>), other ectoparasites, wound tissue and blood.

EKOLOGIE, BIOLOGIE EN BROEIGEWOONTES VAN RENOSTERVOËLS

Eienskap	Rooibekrenostervoël	Geelbekrenostervoël
Iris en oog	Geel tot rooi in volwasse voëls en bruin in jong voëls. 'n Baie opsigtelike, geel lel om die oog is duidelik sigbaar in volwasse voëls. Dit is die belangrikste kenmerk van die spesie.	Oranje tot skarlakenrooi in volwasse voëls en bruin in jong voëls. 'n Baie onopsigtelike, smal, geel lel om die oog in volwasse voëls.
Vorm en kleur van bek	Volwasse voëls het skarlakenrooi bekke, jong voëls het donker, olyfkleurige bekke met geel middel en oranje bekgapings wat donker word met veroudering. Die bek word rooi teen 4 maande ouderdom en is ten volle rooi teen 7 maande ouderdom.	Volwasse voëls het 'n breë, geelbasis bek met 'n rooi punt. Breë geel flanke strek beide kante van die bek afwaarts. Dit word nie in die Rooibekrenostervoël aangetref nie. Jong voëls het donkerige geel bekke sonder oranje bekgapings.
Bolyf	Kop, keel en rug bruin, kruis effens ligter. Bo-vlerke en bo-stert bruin. Jong voëls meer roetbruin as volwassenes. Volwasse veredos eers na ongeveer 6 maande.	Kop, keel en rug bruin, word ligter na kruis wat gelerig vaalbruin is. Die ligte kruis is kenmerkend. Onvolwasse voëls het korter sterte en donkerder keel as volwassenes; bodele het ook fyn swart bande.
Onderlyf	Bors en pens romerige vaalbruin. Ondervlerke donkerbruin.	Bors en pens lig gelerig-vaalbruin. Ondervlerke donkerbruin.
Geslagte	Geslagte eenders.	Geslagte eenders.
Verspreiding	Vanaf Etiopië tot Suid-Afrika. Strek in suidelike Afrika hoofsaaklik in die noordooste vanaf Zoeloeland tot Limpopo; ook in Botswana, Zimbabwe en Mosambiek. Sterk bevolking in noordelike en westelike Limpopovallei. Voorheen ook gevind in oostelike Vrystaat, laagliggende dele van Lesotho en Oos-Kaap tot by Grahamstad. Klein bevolkings in Noordwes, Noord-Kaap, Gauteng en Oos-Kaap.	Afrika suid van die Sahara en westelike Afrika. In Suid-Afrika beperk tot die noordelike derde van die Nasionale Krugerwildtuin; ook in Hluhluwe-Umfolozi kompleks met enkele besoekers aan Mkuzi Wildtuin. Gefragmenteerde bevolkings word ook in 'n breë strook langs die westelike en noordelike Limpoporivier aangetref.
Habitat	Savanna en bosveld areas met gemiddelde reënval meer as 400mm per jaar.	Droë, bladwisselende bosstreke en savanna onder 1,900 meter bo seespieël.
Status in Suid-Afrika	As 'n amper-bedreigde spesie geklassifiseer.	Was as 'n uitgestorwe spesie in 1910 aangeteken. Het die land weer uit Zimbabwe inbeweeg in 1979. Hierdie spesie word tans as kwesbaar beskou en die bevolking word op tussen 150 en 300 broeipare geskat.
Gewoontes	Word in klein swerms van 2 - 6 voëls gedurende die broeiseisoen en tot 50 voëls buite die broeityd aangeteken. Die Rooibekrenostervoël vreet op 'n wye verskeidenheid wilde en mak diere waar dit oral oor die gasheer rondklouter op soek na bosluise en ander ektoparasiete. Die voëls word maklik versteur wanneer genader en sal die indringer van agter die gasheerdier dophou. Soms sal almal op 'n paar diere vergader en luidkeels siggeluide en krakende geluide maak. Buite die broeityd slaap hulle in rietbeddings, op kraglyne, mikrogolftorings en ander hoë strukture.	Word in klein swerms tydens die broeityd en tot 20 individue buite die broeiseisoen aangetref. Die Geelbekrenostervoël vreet op 'n wye verskeidenheid wilde en mak diere, maar verkies die groter spesies. Spandeer die grootste deel van die dag op gasheerdier op soek na ektoparasiete. Die stywe stert word gebruik om die voël te balanseer terwyl dit kos soek. Hierdie voëls word ook maklik versteur en tree net soos die Rooibekrenostervoëls op wanneer 'n indringer opgemerk word. Slaap soms op die gasheerdier.
Voedingstrategie	Die bek is aangepas om 'n skêraksie uit voer. Die gasheerdier se hare word deeglik met die bek gekam op soek na kos. Hulle pluk baie selde prooi van die gasheer af.	Die swaarder en stewiger bek van hierdie spesie is aangepas om prooi van die gasheer af te pluk. Ektoparasiete word visueel opgespoor en met die bek afgepluk.
Hoof voedseltipes	Die Rooibekrenostervoël vreet bosluiseiers, larwes, nimfe en volwasse bosluise (hoofsaaklik <i>Boophilus</i> spp.) en ander ektoparasiete met die skêraksie van die bek. Dit vreet ook dikwels droë velvlokkies, oorwas en ander ektoparasiete, wondweefsel en hou wonde skoon van parasieteiers en –larwes. Dit jag ook insekte vanaf die gasheer se rug.	Vreet hoofsaaklik bosluise (veral <i>Amblyomma hebraeum</i> en <i>Rhipicephalus appendiculatus</i>), ander ektoparasiete, wondweefsel en bloed.

Characteristic	Red-billed Oxpecker	Yellow-billed Oxpecker
Breeding strategy	The Red-billed Oxpecker is a co-operative breeder. The dominant pair is assisted by up to 3 helpers. Only the dominant pair incubates the eggs and at night only the female incubates. The group shares in the building of the nest, that is usually situated in a natural hole in a tree ranging from 1.2 – 15m in height. The nest may be completed within six days and building may even continue throughout the incubation period. Hollow fence poles and artificial nesting structures are also used. Their preferred nesting habitat is open savannah with scattered trees. The breeding season spans from September to March and up to 3 consecutive broods might be raised.	The Yellow-billed Oxpecker is also a co-operative breeder with up to 2 helpers. Only the dominant pair incubates the eggs but the helpers assist in building the nest and feeding the young. The nest is situated in a natural hole in a tree 3 – 6m above the ground. Hollow metal fence posts are also used. The breeding season spans from September to March.
Nest description	Pad of grass, dung and rootlets in which a cup-shaped structure, made from mammalian hair, is placed. Cavities with top entrances of between 90 mm and 70 mm are preferred.	Shallow cupped pad built on a base made of pieces of dry coarse grass and the cup is thickly lined with mammalian hair collected from the host animal. The nest might also include a few feathers.
Eggs and incubation	The eggs are pinkish-white, decorated with fine to heavy red-brown spots. Eggs (2 – 3) are laid in the morning at daily intervals and incubation starts after the laying of the first egg. The incubation period is 12 – 13 days and incubation is done by both parents. The nestlings leave the nest after about 26 – 30 days. The helpers assist in feeding the chicks and fledged young.	The eggs vary from white to pale bluish are plain or spotted with shades of brown. Two to three eggs (usually 3) are laid in the morning at daily intervals and incubation starts after the first egg has been laid. Both sexes share in the incubation of the eggs, which may take up to 13 days. The young fledge after a nestling period of 25 – 32 days and are fed by both parents and 1 – 2 helpers.
General breeding behaviour	Only the dominant pair is involved in courtship and this may include feeding behaviour. Mating occurs on the back of the mammalian symbiont. Prospecting for nest sites is done in the form of inspection flights from the host animal. These inspection flights occur throughout the day with a peak during the morning, midday and late in the afternoon. All members may partake in nest prospecting, but the dominant pair takes the lead. The dominant male indicates the suitability of the nest by quivering his wings. Previous sites may be re-occupied for successive broods. Competition for available nesting sites is fierce and Oxpeckers are often displaced by starlings, kingfishers and rollers. Egg shells are removed once the chicks have hatched. Faecal sacs are removed and the nest is kept scrupulously clean. The chicks are altricial (born naked with eyes closed and are helpless) and nidicolous (remains in the nest after hatching). The parents and helpers feed the chicks by carrying food in the mouth cavity and not in the beak. When young oxpeckers fledge they fly directly to a mammalian host and may be fed for up to 2 months. Young birds may return with their parents to the nest on a second breeding attempt, but no evidence is available that they assist in the feeding of the chicks.	
Symbiotic relationship	A symbiotic relationship called mutualism exists between oxpeckers and their mammalian hosts. Oxpeckers gain nourishment from their hosts by feeding on their ectoparasites, they collect hair to be used as nesting material, occasionally use them as overnight roosts and hitching a free ride to waterholes. In return, oxpeckers warn their hosts of potential danger and rid them of unwanted ectoparasites that might cause disease. They also keep fresh wounds clean, thus preventing maggot infestation and subsequent death of the host. Definitely a “win-win” situation.	
Taxonomical notes	Red-billed Oxpecker	Yellow-billed Oxpecker
Scientific name	<i>Buphagus erythrorhynchus</i> (Stanley, 1814)	<i>Buphagus africanus</i> (Linnaeus, 1766)
Derivation	Bos = ox; phagus = eat; erythros = red; rynchos = bill.	Bos = ox; phagus = eat; africanus = of Africa.
Sub-species in southern Africa	<i>B. e. scotinus</i> – eastern lowlands. <i>B. e. caffer</i> – upper Limpopo catchment <i>B. e. angolensis</i> – in Caprivi and Okavango	None recognised

Eienskap	Rooibekrenostervoël	Geelbekrenostervoël
Broei-strategie	Die Rooibekrenostervoël is 'n koöperatiewe broeier. Die dominante paar word deur tot 3 helpers bygestaan maar slegs die dominante paar lê eiers en snags broei slegs die wyfie. Die groep help met die bou van die nes wat gewoonlik in 'n natuurlike holte in 'n boom tussen 1.2 m en 15 m bo die grond is. Die nes kan in ses dae voltooi word en konstruksie mag gedurende die volle teelseisoen voortduur. Uitgeholde heiningpale en kunsmatige neskaste word ook gebruik. Hulle verkies oop savanna met verspreide bome. Die teelseisoen begin in September en gaan deur tot Maart waartydens tot 3 broeisels grootgemaak kan word.	Die Geelbekrenostervoël is ook 'n koöperatiewe broeier. Slegs die dominante paar bebroeï die eiers, maar helpers bou ook aan die nes en voer die kuikens. Die nes is gewoonlik in 'n natuurlike holte 3 m tot 6 m bo die grond en selfs hol metaalheiningpale sal gebruik word. Die broeiseisoen strek vanaf September tot Maart.
Nesbeskrywing	'n Bedding van gras, mis en worteltjies word gebou en 'n koppievormige struktuur word dan uitgelê met soogdierhare. Holtes met 'n bo-ingang van 70 mm tot 90 mm word verkies.	'n Bedding van droë gras word gebou en daarin word 'n vlak holte gemaak wat met 'n dik laag soogdierhare van die gasheer uitgelê word met. Die nes mag ook 'n paar vere bevat.
Eiers en uitbroei	Die eiers is pienk-wit met fyn tot swaar rooibrui spikkels. Eiers (2 – 3) word in die oggend gelê met daaglikse intervalle en die broeiery begin sodra die eerste eier gelê is. Die uitbroei-periode is 12 tot 13 dae en die broeiery word deur beide ouers hanteer. Kuikens verlaat die nes na ongeveer 26 – 30 dae. Die helpers staan ouers by met die voer van kuikens en nesverlaters.	Die eiers varieër van wit tot ligblou en is effekleurig of gespikkel met skakerings van bruin. Twee tot drie eiers (meestal 3) word in die oggend met daaglikse tussenposes gelê en die broeiery begin nadat die eerste eier gelê is. Die uitbroeitydperk is 13 dae. Kuikens verlaat die nes na 'n periode van 25 – 30 dae en word deur beide ouers sowel as 1 of 2 helpers gevoer.
Algemene broeigewoontes	Slegs die dominante paar is inhofmakery betrokke en dit mag voedingsgedrag insluit. Paring vind op die rug van die gasheerdier plaas. Soektogte vir neste word gedoen deur ondersoekende vlugte vanaf die rug van die gasheerdier uit te voer. Hierdie ondersoekende vlugte vind deur die dag plaas met hoogtepunte in die oggend, middag en laatmiddag. Alle lede van die swerm neem daaraan deel maar die dominante paar neem die leiding. Die dominante mannetjie dui 'n geskikte broeiplek aan deur sy vlerke te vibreer. Vorige broeiplekke mag weer vir opvolgende broeisels gebruik word. Kompetisie vir beskikbare broeiplekke is hewig en renostervoëls word dikwels deur sprees, visvangers en troupanse verplaas. Eierdoppe word verwyder wanneer die kuikens die nes verlaat. Mispakkies word gereeld verwyder en die neste word besonder skoon gehou. Kuikens is altrikaal (word nakend, hulpeloos en met toe oë uitgebroei) en nesgebonde (bly in die nes na uitbroei). Die ouers en helpers voer kuikens deur kos in die mondholte en nie in die bek nie, aan te dra. Wanneer jong renostervoëls die nes verlaat vlieg hulle direk na 'n gasheerdier en mag vir tot 2 maande lank gevoer word. Jong voëls mag saam met hul ouers na neste terugkeer tydens die tweede broeipoging maar daar is geen bewys dat hulle met die voer van kuikens help nie.	
Simbiotiese verwantskap	'n Simbiotiese verwantskap wat as mutualisme bekend staan, bestaan tussen renostervoëls en hul gasheer. Renostervoëls vind voedsel op die gasheer in die vorm van ektoparasiete, hulle verkry nesmateriaal deur die hare van hul gasheer te versamel, gebruik gasheer as gratis vervoer na drinkplekke en slaap ook dikwels op hul gasheer. In ruil hiervoor waarsku renostervoëls hul gasheer teen moontlike gevaar en hou hulle vry van parasiete wat siektes mag oordra. Hulle hou ook vars wonde vry deur maaierbesmettings en uiteindelijke dood te voorkom. Dit is beslis 'n 'wen-wen' situasie.	
Taksonomiese notas	Rooibekrenostervoël	Geelbekrenostervoël
Wetenskaplike name	<i>Buphagus erythrorhynchus</i> (Stanley, 1814)	<i>Buphagus africanus</i> (Linnaeus, 1766)
Afleiding	<i>Bos</i> = os; <i>phagus</i> = eet; <i>erythros</i> = rooi; <i>rhynchos</i> = bek.	<i>Bos</i> = os; <i>phagus</i> = eet; <i>africanus</i> = van Afrika.
Sub-spesies in suidelike Afrika	<i>B. e. scotinus</i> – oostelike laagliggende dele. <i>B. e. caffer</i> – bo-Limpopo opvanggebied <i>B. e. angolensis</i> – in Caprivi en Okavango	Geen word erken nie.

HOW TO ATTRACT OXPECKERS TO YOUR FARM – CREATING FAVOURABLE CONDITIONS TO MAINTAIN HEALTHY POPULATIONS

If oxpeckers occur in the area they may be attracted to the farm by implementing certain measures. Once the Yellow-billed or Red-billed Oxpeckers arrive on the farm, one could employ certain tactics to ensure these useful birds feel welcome and remain on the farm.

1. Terminate the use of any animal dips that may harm the oxpeckers. Refer to the Wildlife Conflict Prevention Group's *Ectoparasiticide-Oxpecker Compatibility Chart* for products that will not harm the birds.
2. Request all neighbours to also terminate the use of dips that may harm oxpeckers and to only use oxpecker compatible dips. Inform all members of the local farmers association about the arrival of oxpeckers and motivate all to use oxpecker compatible dips.
3. Dip farm animals only when it becomes really essential – remember that oxpeckers also have to eat! Always use the correct dosage and NEVER overdose!
4. Try and stop dipping game as far as possible in order to allow oxpeckers to take over the management of ticks.
5. Fit nest boxes to trees 2.5 to 4 m above the ground in areas where oxpeckers are observed. The best places are usually on the outskirts of cattle kraals and drinking troughs that are frequented

by animals. Phone the WCPG Operation Oxpecker Information Line 082 325 6578 to order nest boxes.

6. Inform everyone on the farm about the birds and warn people not to disturb the birds for the first few months. Do not herd cattle in the morning when oxpeckers arrive to feed on them. Allow the birds time to fulfil their task before working with the cattle.
7. Avoid cattle kraals and drinking troughs in the early morning and late afternoon to allow oxpeckers during this time to explore the nesting boxes and to settle into them (or else they may move off to other areas to roost and nest).

REFER TO THE SPECIES REFERENCE GUIDE FOR DESCRIPTIONS OF THE RED-BILLED AND YELLOW-BILLED OXPECKERS.

CONTACT THE WILDLIFE CONFLICT PREVENTION GROUP WITH THE GOOD NEWS OF OXPECKERS ON YOUR PROPERTY AND WE SHALL PROVIDE FURTHER INFORMATION. REPORT ANY BREEDING ACTIVITIES AND SUCCESS TO THE WILDLIFE CONFLICT PREVENTION GROUP.

HOE OM RENOSTERVOËLS NA JOU PLAAS TE LOK – DIE VESTIGING VAN GUNSTIGE TOESTANDE OM GESONDE BEVOLKINGS TE ONDERHOU

As renostervoëls, hetsy die Rooibek- of die Geelbekrenostervoëls, in die omgewing voorkom kan hulle na die plaas aangelok word deur sekere stappe te implimenter. Wanneer hulle wel op die plaas opdaag is daar 'n paar dinge wat gedoen kan word om te verseker dat hierdie nuttige voëls hulleself sal tuismaak en op die plaas bly.

1. Skakel alle dieredipstowwe wat renostervoëls kan benadeel onmiddelik uit. Raadpleeg die Konflik Voorkomings Groep se *Ektoparasitised-Renostervoël Versoenbaarheidsgids* vir produkte wat die voëls nie sal benadeel nie.
2. Versoek onmiddelik alle bure om ook alle gevaarlike dipstowwe onmiddelik uit te skakel en Renostervoëlversoenebare dipstowwe te gebruik. Lig die plaaslike boerevereniging se lede oor die aankoms van die voëls in en motiveer almal om Renostervoëlversoenebare dipstowwe te gebruik.
3. Dip plaasdiere slegs wanneer dit werklik noodsaaklik is – onthou dat die Renostervoëls ook moet eet! Gebruik altyd die korrekte voorgeskrewe dosis – moet NOOIT oordoseer nie!
4. Skakel die dip van wild sover as wat dit moontlik is uit sodat die voëls die werk van bosluisbeheer kan oorneem.
5. Plaas neskaste in bome, sowat 2.5 tot 4 meter bokant die grond in gebiede waar die Renostervoëls waargeneem word. Die beste plekke is gewoonlik aan die buitewyke van beeskrale en

drinkkrippe waar diere gereeld aandoen. Skakel die GWG Operasie Renostervoël Inligtingslyn 082-873-1046 vir bestellings van neskaste.

6. Lig almal op die plaas oor die voëls in en waarsku mense om die voëls vir die eerste paar maande heeltemal met rus te laat – moet dus nie beeste begin aanjaag wanneer die voëls in die oggende op hulle kom vreet nie. Laat die voëls liever toe om eers hulle werk te verrig voordat daar met beeste gewerk word.
7. Vermoed die beeskrale en drinkkrippe soggens en laatmiddag sodat die voëls hierdie tyd kan benut om die neskaste te ondersoek en te begin beset, anders sal hulle elders na slaap- en broeiplekke gaan soek.

RAADPLEEG DIE SPESIEVERWYSINGSGIDS VIR BESKRYWINGS VAN DIE ROOIBEK- EN GEELBEKRENOSTERVOËLS.

SKAKEL DIE KONFLIK VOORKOMINGS GROEP MET DIE GOEIE NUUS AS RENOSTERVOËLS OP U EIENDOM OPDAAG – ONS SAL VERDERE RAAD EN INLIGTING VERSKAF. MELD ENIGE BROEI-AKTIWITEITE EN –SUSKES BY DIE KONFLIK VOORKOMINGS GROEP AAN.

AGRICULTURAL, HEALTH AND ENVIRONMENTAL PROBLEMS THAT ARISE AS A RESULT OF THE USE OF HOME MADE POUR-ON ANIMAL DIPS

1. The mixing of home made pour-on dips, as well as the manufacturing, sales, distribution, or recommendation of such products, is a criminal offence under Regulation No. R1716 (26 July 1991) of the Fertilizers, Farm Feeds, Agricultural Remedies and Stock Remedies Act, 1947 (Act No. 36 of 1947). Perpetrators can be prosecuted and a fine or imprisonment may be imposed.
2. The concentration of active ingredients in home made products is NEVER accurate and this results in over or under dosing of the animal.
3. The correct additives that are required to spread the active ingredient evenly and accurately onto the animal are NEVER added to home made mixtures as these compounds are not available in the normal consumer's market. Oils such as cooking oil, coconut oil, citronella oil, mineral oils and diesel do NOT have the desired spreading effect and are often used illegally. The active ingredient is thus not effectively distributed over the animal and therefore only some of the ectoparasites are killed. The progeny of those parasites that are not affected are almost impossible to control.
4. Diesel and mineral oils as well as other illegal, unregistered home made mixtures that contain crop protection products, are often severely detrimental and poisonous to the animal. Animal skins are severely chemically corroded, animals can be poisoned while meat and milk may be severely contaminated with active ingredients. This results in a serious health risk to the consumer.
5. Over and under dosing, and the uneven distribution of the active ingredient cause ectoparasites to build up resistance against pyrethroids. Ticks in particular build up a severe resistance to pyrethroids. In the Eastern Cape the Blue Tick can no longer be controlled with pyrethroid animal dips on many farms. Many farmers have therefore lost the battle against the Blue Tick.
6. Registered pyrethroids and amidine pour-on acaricides that are manufactured by animal health companies will not have a systemic effect on the animals, therefore, no traces of the active ingredient or other components will be found in the meat or milk of the animal. Home made mixtures have the ability to become systemic as a result of using the wrong solvents. It will therefore contaminate the meat and milk, and render it unfit for human consumption.
7. Besides the disadvantages for the animals that are improperly treated, this illegal practice may also have a severely detrimental effect on birdlife and smaller organisms such as dung beetles, other beneficial insects and earthworms.

PLEASE ACT RESPONSIBLY FOR THE BENEFIT OF MANKIND, ANIMALS AND THE ENVIRONMENT.

LANDBOU, GESONDHEIDS- EN OMGEWINGSPROBLEME WAT ONTSTAAN AS GEVOLG VAN DIE GEBRUIK VAN TUISVERMENGDE OPGIETDIPSTOWWE

1. Die tuismeng van opgietsmiddels sowel as die vervaardiging, verkoop, verspreiding of aanbeveling van sulke produkte is 'n strafbare misdryf onder Regulasie Nr. R1716 (26 Julie 1991) van die Wet op Misstawwe, Plaasvoere, Landboumiddels en Veemiddels, 1947 (Wet Nr. 36 van 1947). Oortreders kan vervolgt word en tronkstraf of 'n boete opgelê word.
2. Die konsentrasie van aktiewe bestanddele in tuisgemende middels is NOOIT akkuraat nie en dit lei tot die oordosering of onderdosering van diere.
3. Die korrekte bymiddels wat noodsaaklik is om die aktiewe bestanddele egalig en eweredig oor die dier te versprei word NOOIT by tuisgemende middels gevoeg nie, omdat sulke bymiddels nie vir die gebruiker in die algemene handel beskikbaar is nie. Olies soos kookolie, klapperolie, sitronella olie, minerale olies en diesel wat dikwels onwettig gebruik word het NIE die gewenste verspreidings effek nie en die aktiewe bestanddele word dus nie effektief oor die dier versprei nie. Slegs sommige van die ektoparasiete word dus gedood en die nageslag van dié wat nie aangetas word nie is feitlik onbeheerbaar.
4. Diesel en mineraalolies sowel as ander onwettige, ongeregisteerde tuisgemende middels wat oesbeskerminsprodukte bevat is dikwels uiters skadelik en giftig vir die dier. Diere se velle word chemies erg verbrand, diere word vergiftig terwyl die melk en vleis van sulke diere erg met die aktiewe bestanddele besoedel mag word. Dit skep 'n ernstige gesondheidsrisiko vir die verbruiker.
5. Oor- en onderdosering asook die onegalige verspreiding van aktiewe bestanddele veroorsaak dat ektoparasiete weerstand teen peritroïede opbou. Bosluis in die besonder bou baie maklik weerstand teen peritroïede op. In die Oos-Kaap kan die Bloubosluis op baie plase nie meer met peritroïeddipstawwe beheer word nie. Verskeie boere het dus die stryd teen die Bloubosluis verloor.
6. Geregisteerde peritroïed- en amidienbosluisopgietsmiddels wat deur dieregesondheidsmaatskappye vervaardig word sal geen sistemiese uitwerking op diere hê nie, m.a.w. geen residue van aktiewe bestanddele of ander komponente sal in die vleis of melk aangetref word nie. Tuisvermengde opgietsmiddels het die vermoë om wel sistemies te raak as gevolg van die gebruik van verkeerde oplosmiddels. Dit sal dus die vleis en melk kontamineer en dit ongeskik vir menslike gebruik maak.
7. Benewens die negatiewe gevolge vir diere wat verkeerd met tuisvermengde opgietsmiddels behandel word lei, hierdie onwettige praktyk ook tot ernstige nagevolge op voëllewe en kleiner organismes soos miskruisers, ander nuttige insekte en erdwurms.

TREE ASSEBLIEF VERANTWOORDELIK OP TER WILLE VAN MENSE, DIERE EN DIE OMGEWING.

IMPORTANT NOTES ON AUTOMATIC APPLICATORS

Acaricides must always be applied strictly according to the product instructions. Any automatic applicator that is used to apply pour-on acaricides must therefore be designed so that it dispenses the correct proscribed volume according to each animal's body weight (1 ml/10 kg body weight for most pour-on products).

WARNING: Continuous uncontrolled daily under dosage of animals leads to total parasite resistance to acaricides. Most conventional applicators do not dispense acaricides according to the prescribed dosage rates. Continuous over dosing wastes the product and causes environmental pollution. It may also harm the animals.

The Wildlife Conflict Prevention Group recommends the **OXPECKER POUR-ON DIP SCALE** as it automatically, without power or labour, measures and dispenses pour-on acaricides virtually 100% accurate onto animals over 40 kg body weight. For more information, contact the manufacturer at 082 552 4953.

BELANGRIKE NOTAS OOR OUTOMATIESE TOEDIENERS

Bosluismiddels moet altyd streng volgens die produkaanwysings toegedien word. Enige outomatiese toediener wat gebruik word om opgiemiddels toe te dien, moet dus so ontwerp word dat dit die korrekte volume volgens elke dier se liggaamsmassa toedien (1 ml/10 kg vir meeste opgiemiddels).

WAARSKUWING: Langdurige onbeheerde daaglikse onderdosering van diere lei tot algehele parasietweerstand teen bosluismiddels. Meeste konvensionele toediens dien dipstowwe nie teen die voorgeskrewe dosisse toe nie. Oordosering vermors die produk en lei tot omgewingsbesoedeling. Dit mag ook die diere benadeel.

Die Konflik Voorkomings Groep beveel die **OXPECKER OPGIETDIPSKAAL** aan aangesien dit opgiemiddels, sonder krag of arbeid, feitlik 100% akkuraat uitmeet en toedien op diere van meer as 40 kg liggaamsmassa. Vir verdere inligting skakel die vervaardiger by 082 552 4953.