

Merit Analysis for top 45 Global Minor Use Priorities Summer 2020

Use 1 form per crop/pest priority

(To be conducted by a committee of global proponents for the priority)

Tropical						
Aubergine -Thrips – 75 (total 2 forms)						
Edouard Lehmann, ACP countries, edouard.lehmann@coleacp.org						
Criteria*						
1. Is the crop-pest combination a situation with no available products? Yes, 2 points / No = 0						No (0)
	Solution 1	Solution 2	Solution 3	Solution 4	Solution 5	Solution 6
2. Are there potential solutions?	BioPiq (Matrine)	Nofly (Paecilomyces fumosoroseus)	<i>Metarhizium anisopliae</i> ICIPE 69	ESCORT 19 EC (emamectine benzoate)	Frankliniella Pro Caps® (Cyclopropyl methyl isonicotinate ; Lavandulyl cyclopropane carboxylate) Dispenser against <i>Frankliniella occidentalis</i>	Spinetoram
3. Company name	Savana	Elephant Vert	The Real IPM Company (ReallPM) (now part of Biobest Group) Isolate: <i>icipe</i>	Greenlife crop protection Africa Ltd.	M2i Life Sciences	Corteva
4. Company contact name and e-mail	Nicolas Gerard nicolas.gerard@savana-france.com	Jean Dupuis jean.dupuis@elephant-vert.com	ReallPM: Samuel Ngugi (GM), sam@realipm.com , +254 0721423038 <i>icipe</i> : Komivi Akutse, kakutse@icipe.org	Greenlife crop protection Africa Ltd. Mombasa Road, Opposite Signature Mall, Athi 55 Ltd Complex, Warehouse No. 6., P.O. Box 24942-00100, Nairobi, Kenya, +254 722 563 698 +254 735 544 544 Email: info@greenlife.co.ke	Hermann Gbrou Hermann.Gbrou@m2i-lifesciences.com	Carmen Tiu
5. Level of registrant support globally – list of countries registrant is willing to supply GLP test substance, standards and pursue a label (A)	Sahelian Pesticide Committee (Burkina, Cabo verde, Chad, Guinée-Bissau, Mali, Mauritania, Niger, Senegal, The Gambia) and Togo	Sahelian Pesticide Committee (Burkina, Cabo verde, Chad, Guinée-Bissau, Mali, Mauritania, Niger, Senegal, The Gambia)	Kenya, Tanzania, and Senegal	Kenya	Dominican Republic, Brazil, Guatemala, Colombia, Ecuador, Peru, Chili, Kenya, Uganda and South Africa	Kenya, Uganda, Senegal, Ghana
6. List of countries having field and analytical ability and willing to conduct trials (B)	Burkina, Cabo verde, Chad, Guinée-Bissau, Mali, Mauritania, Niger, Senegal, The Gambia, Togo	Burkina, Cabo verde, Chad, Guinée-Bissau, Mali, Mauritania, Niger, Senegal, The Gambia	Kenya, Tanzania and Senegal	Kenya	Dominican Republic, Brazil, Guatemala, Colombia, Ecuador, Peru, Chili, Kenya, Uganda and South Africa	Kenya, Uganda, Senegal, Ghana
7. <i>Insert 1 point for each match between countries that registrant supports, and countries willing (A + B)</i>	10	9	3	1	10	4

8. Is efficacy already established against the target pest or can it be bridged via rationale from other labeled uses? <i>Insert 1point</i>	Yes (1)	Yes (1)	Yes (1), efficacy already established against the pest	Yes (1) – The product is already registered in Kenya on French Beans, Tomato, Capsicum, Rose, etc. But efficacy trials are needed to register the product on Aubergine	Yes (1) Efficacy data from trials in Spain (Pepper); Morocco (Pepper); Guatemala (Avocado), France (Cucumber); Australia	Yes 1
9. Are there any residue data already available for the crop/pest combination and if so, from where?	No	No MRL required	No	No – Kenya already discussed conducting residue studies on aubergine with IR4	No MRL required (pest control without leaving residues and showing no toxicity to wildlife)	
10. Are project champions identified?(Insert names) <i>Insert 1point</i>	Nicolas Gerard nicolas.gerard@savana-france.com (1)	Jean Dupuis jean.dupuis@elephant-vert.com (1)	RealIPM: Samuel Ngugi (GM), sam@realipm.com , +254 0721423038 <i>icipe</i> : Komivi Akutse, kakutse@icipe.org Projects supporting commercialization (2): DFID Biopesticide, Biolnnovate-PROSAFE (1)	Lucy Namu lnamu@kephis.org	Hermann Gbrou Hermann.Gbrou@m2i-lifesciences.com (1)	Lucy Namu
11. Will a uniform GAP (rate, application pattern, PHI, formulation, premix be able to be established across all countries? Yes = <i>Insert 1point</i> ; No = 0	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	1
12. Does the product replace old technology with reduced risk technology? (1 point per old product replaced with reduced risk defined as a more favorable environmental or human health risk assessment)	Yes (1)	Yes (1)	Yes (1)	No (0)	Yes (1) (using this dispenser for mass trapping purposes is a low-risk alternative to former potential technology used)	1
13. Does the potential solution fit into IPM systems, i.e. low risk to beneficials <i>Insert 1point</i>	Yes (1)	Yes (1)	Yes (1)	No (0)	Yes (1) (Using Semiochemicals as plant protection products fit perfectly with IPM strategies)	Yes 1

14. Does the project complement current technologies to address pesticide resistance and/or control resistant pest/disease/weed or provide an alternative mode of action? <i>Insert 1point</i>	Yes (1)	Yes (1)	Yes (1)	Yes (1) – to date only Spinosad, Thiacloprid and Hypoaspis miles are registered in Kenya on aubergine	Yes (1) (No risk of resistance mechanisms)	Yes 1
15. Are there any crop grouping MRL opportunities? (1 point per crop group)	Yes (1)	N/A No MRL required	Yes(1) (crops: a wide range of vegetables susceptible to leaf miner, thrips, mealybug whiteflies; fruit trees especially mango)	Yes (1)	N/A No MRL required	Yes 1
16. Comments (Please use this space to make a memo of any other information that might be points of consideration such as JMPR cycle, CODEX, EPA, EU registration/MRL status, ability of a product to control multiple pest priorities, can be used across multiple crops, one formulation or premix combination used in one part of the world, regulatory needs, etc. No specific points, but useful information			<ul style="list-style-type: none"> ▪ <i>Metarhizium anisopliae</i> ICIPE 69, caused significantly high mortality to thrips species in the laboratory and field conditions. ▪ Oviposition, feeding ability, feeding punctures and adult emergence were significantly reduced by this isolate, which was recently found also compatible with attractant-lures and newly identified thrips pheromone high conidial germination and virulence. This isolate is already applied in inundative approach but could also be used in combination with these semiochemicals for mass trapping and autodissemination thrips, especially <i>Ceratothripoides brunneus</i> and <i>Frankliniella schutzei</i> management in eggplants and other solanaceous crop production systems. ▪ <i>Metarhizium anisopliae</i> ICIPE 69 is already registered in 	<ul style="list-style-type: none"> ▪ PPP already registered in Kenya for other uses. The registrant would therefore seek a label extension. 	<p><u>Description:</u> Innovative formulation based on micro-encapsulated semiochemicals that provides the following advantages compared to traditional impregnated dispensers:</p> <ul style="list-style-type: none"> - Transport and storage at room temperature - Shelf life of 2,5 years - Linear and regular diffusion <p><u>Comments:</u> 2 purposes</p> <ul style="list-style-type: none"> -Dispenser for monitoring purpose (1 trap/50-100 m²) -Dispenser for Mass trapping purpose (1 trap every 10m) <p>Monitoring purpose= Best signal to trigger a treatment</p> <p>Mass trapping purpose= protection of the crop by lowering pest pressure under the threshold of vulnerability.</p> <p><u>Trials and use:</u> This product is already commercialized in Europe (No need of registration for monitoring product); demo trials data exist in Europe, LATAM and North Africa.</p>	<ul style="list-style-type: none"> ▪ Alternatively, there could be interest to seek an extension of use / label in countries where PPP containing spinetoram are already registered (Dow) on other crops (Kenya and Senegal)

			<p>Kenya, Uganda and could be introduced in Senegal to tackle thrips in eggplant.</p> <ul style="list-style-type: none"> ▪ The EAC harmonized guidelines will enable to fast-track label extension in Tanzania and Uganda and introduce this into Senegal through CILSS biopesticide harmonization program. ▪ Ecotox: already done. ▪ Tox: already done. <p>Products based on ICIPE 69 are among the most widely used entomopathogenic biopesticides in SSA (132,994 ha in 2019) This solution is already registered in Uganda</p>		<ul style="list-style-type: none"> ▪ This product can be used alone (mass trapping purposes) or in combination with another product (monitoring as signal) 	
TOTAL POINTS	17	15	10	6	16	11
					GRAND TOTAL	75

*if not specified otherwise in the 'criteria' box, assign 1 point per solution in gray boxes only.

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The highlighted solutions may not have efficacy information or deficiencies and were not included in the point total.

Tropical					
Aubergine -Thrips					
Edouard Lehmann, ACP countries, edouard.lehmann@coleacp.org					
Criteria*					
1. Is the crop-pest combination a situation with no available products? Yes, 2 points / No = 0					No (0)
	Solution 7	Solution 8	Solution 9	Solution 10	Solution 11
2. Are there potential solutions?	Endophytic fungi (<i>Trichoderma</i> , <i>Beauveria</i> and <i>Hypocrea</i>)	Biopoder (Essential oils, chili pepper)	Piol (Neem, chili pepper, garlic)	Limoclean (extract of <i>Trichoderma harzianum</i> , Bore, D-limonene)	HN (Neem, chili pepper, garlic)
3. Company name	No company yet; Isolate: <i>icipe</i>	BIOPHYTECH	BIOPHYTECH	BIOPHYTECH	BIOPHYTECH
4. Company contact name and e-mail	<i>icipe</i> : Komivi Akutse, kakutse@icipe.org	Jean-Alain Eysseric biopro30.eysseric@yahoo.fr	Jean-Alain Eysseric biopro30.eysseric@yahoo.fr	Jean-Alain Eysseric biopro30.eysseric@yahoo.fr	Jean-Alain Eysseric biopro30.eysseric@yahoo.fr
5. Level of registrant support globally – list of countries registrant is willing to supply GLP test substance, standards and pursue a label (A)	Kenya, Uganda, Tanzania and Senegal	Burkina Faso, Sénégal, Ivory Coast, Mali, Niger, Nigeria, Mauritania, Rwanda, Togo, Benin, Guinea	Burkina Faso, Sénégal, Ivory Coast, Mali, Niger, Nigeria, Mauritania, Rwanda, Togo, Benin, Guinea	Burkina Faso, Sénégal, Ivory Coast, Mali, Niger, Nigeria, Mauritania, Rwanda, Togo, Benin, Guinea	Burkina Faso, Sénégal, Ivory Coast, Mali, Niger, Nigeria, Mauritania, Rwanda, Togo, Benin, Guinea
6. List of countries having field and analytical ability and willing to conduct trials (B)	Kenya, Uganda, Tanzania and Senegal	Burkina Faso, Sénégal, Ivory Coast, Mali, Niger, Nigeria, Mauritania, Rwanda, Togo, Benin, Guinea	Burkina Faso, Sénégal, Ivory Coast, Mali, Niger, Nigeria, Mauritania, Rwanda, Togo, Benin, Guinea	Burkina Faso, Sénégal, Ivory Coast, Mali, Niger, Nigeria, Mauritania, Rwanda, Togo, Benin, Guinea	Burkina Faso, Sénégal, Ivory Coast, Mali, Niger, Nigeria, Mauritania, Rwanda, Togo, Benin, Guinea
7. Insert 1 point for each match between countries that registrant supports, and countries willing (A + B)	4	10	10	10	10
8. Is efficacy already established against the target pest or can it be bridged via rationale from other labeled uses? Insert 1point	Yes (1), efficacy already established against the pest	No (0) -No bioefficacy field trials conducted so far and the product is not yet registered but it has already been used in a preliminary test conducted with farmers in Burkina Faso and Senegal with good results	No (0) -No bioefficacy field trials conducted so far and the product is not yet registered but it has already been used in a preliminary test conducted with farmers in Burkina Faso and Senegal with good results	No (0) -No bioefficacy field trials conducted so far and the product is not yet registered but it has already been used in a preliminary test conducted with farmers in Burkina Faso and Senegal with good results	No (0) -No bioefficacy field trials conducted so far and the product is not yet registered but it has already been used in a preliminary test conducted with farmers in Burkina Faso and Senegal with good results
9. Are there any residue data	No	No MRL required	EU MRL (1 mg/kg) but no CODEX MRL(Group 012 Fruiting	No MRL required	EU MRL (1 mg/kg) but no CODEX MRL(Group 012 Fruiting

already available for the crop/pest combination and if so, from where?			vegetables other than Cucurbits) for azadirachtin		vegetables other than Cucurbits) for azadirachtin
10. Are project champions identified?(Insert names) <i>Insert 1point</i>	icipe: Komivi Akutse, kakutse@icipe.org Projects supporting commercialization (2): DFID Biopesticide, BiInnovate-PROSAFE (1)	Jean-Alain Eysseric biopro30.eysseric@yahoo.fr (1)			
11. Will a uniform GAP (rate, application pattern, PHI, formulation, premix be able to be established across all countries? Yes = <i>Insert 1point</i> ; No = 0	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)
12. Does the product replace old technology with reduced risk technology? (1 point per old product replaced with reduced risk defined as a more favorable environmental or human health risk assessment)	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)
13. Does the potential solution fit into IPM systems, i.e. low risk to beneficials <i>Insert 1point</i>	Yes (1)	No (0) – essential oils are not specific	No (0) – essential oils are not specific	No (0) – essential oils are not specific	No (0) – essential oils are not specific
14. Does the project complement current technologies to address pesticide resistance and/or control resistant pest/disease/weed or provide an alternative mode of action? <i>Insert 1point</i>	Yes (1)	Yes (1)	Yes (1)	Yes (1)	Yes (1)
15. Are there any crop grouping MRL	Yes (1) (Nightshade and other solanaceous crops)	N/A	Yes (1)	N/A	Yes (1)

opportunities? (1 point per crop group)					
<p>16. Comments</p> <p>(Please use this space to make a memo of any other information that might be points of consideration such as JMPR cycle, CODEX, EPA, EU registration/MRL status, ability of a product to control multiple pest priorities, can be used across multiple crops, one formulation or premix combination used in one part of the world, regulatory needs, etc.</p> <p>No specific points, but useful information</p>	<ul style="list-style-type: none"> Life-history parameters of thrips, especially <i>Thrips tabaci</i>, were significantly affected by the endophytically-colonized onion and beans host plants with <i>T. asperellum</i> M2RT4, <i>B. bassiana</i> ICIPE706 and <i>H. lixii</i> F3ST1. Endophyte-inoculated plants reduced the feeding ability of the pest, number of eggs laid, feeding punctures, developmental time and adults emerging. <p>Isolate from ICIPE, not yet commercialized by a company; Laboratory trials conducted and field trials are projected. MUF/IR-4 to decide if the solution should be included</p>	<p>This product can be used also on maize and vegetables.</p> <ul style="list-style-type: none"> It's an organic product 	<p>This product is already used on the maize, vegetable, sesame and cotton. It's an organic product. For this product we have started registration trials at the Sahelian Pesticide Committee level.</p> <ul style="list-style-type: none"> Also through the POPs reduction project FAO through ITTA has set up field efficacy trials and field schools on PIOL in Burkina, Mali, and Senegal. 		<p>This product is already used on the maize, vegetable, sesame and cotton. It's an organic product. For this product we have started registration trials at the Sahelian Pesticide Committee level.</p> <ul style="list-style-type: none"> Also through the POPs reduction project FAO through ITTA has set up field efficacy trials and field schools on PIOL in Burkina, Mali, and Senegal.
TOTAL POINTS	0	0	0	0	0
				GRAND TOTAL	0

*if not specified otherwise in the 'criteria' box, assign 1 point per solution in gray boxes only.

