

## ARC INFRUITEC-NIETVOORBIJ

**APPLICATION FOR DIAGNOSTIC AND ANALYTICAL SERVICES - 2021/2022**

LIST OF POSSIBLE SERVICES		Parts of the form to be completed					
APPLICATION FOR:	Mark with X	A	B	C	D	E	F
Fungal pathogen isolation & identification		A	B	C	D		F
PCR analysis for bacterial pathogen		A	B				F
PCR analysis for phytoplasm		A	B				F
Nematode analysis		A	B				F
Bud analysis for mites		A					F
Bud analysis for fertility		A					F
Mealybug Trap counts		A	B				F
Insect & Mite Identification		A	B				F
Other entomological service (specify)		A	B				F
On farm consultation		A	B				F
Proteomics analysis		A				E	F
AGRI-Food Analytic Laboratory		A	B				F
DNA Analysis (plants)		A	B				F
Soil Enzyme Activities (soil quality/fertility)		A	B	C			F
Microbial Analysis		A	B				F
Cellar Services		A	B				F

PARTICULARS OF CLIENT		A						
<u>CUSTOMER</u>	<u>SAMPLE BROUGHT IN BY</u>							
Surname: _____	Surname: _____							
Name: _____	Name: _____							
Farm: _____	Farm: _____							
Address: _____ _____ _____	Address: _____ _____ _____							
Postal code: _____	Postal code: _____							
VAT no.: _____	VAT no.: _____							
Tel. no.: _____	Tel. no.: _____							
Cell no.: _____	Cell no.: _____							
e-mail: _____	e-mail: _____							
Order no: _____								
<b>Account to:</b>	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 33%; text-align: center; padding: 2px;"><b>Producer</b></td> <td style="width: 33%; text-align: center; padding: 2px;"><b>Other</b></td> <td style="width: 33%; text-align: center; padding: 2px;"><b>Internal - ARC Project #:</b></td> </tr> <tr> <td style="border: 1px solid black; height: 20px;"></td> <td style="border: 1px solid black; height: 20px;"></td> <td style="border: 1px solid black; height: 20px;"></td> </tr> </table>	<b>Producer</b>	<b>Other</b>	<b>Internal - ARC Project #:</b>				
<b>Producer</b>	<b>Other</b>	<b>Internal - ARC Project #:</b>						
Invoice Address: _____ _____								

**INFORMATION ON CROP****B**Crop: Apple Nectarine Apricot Table grapes Pear Wine grapes Plum Fynbos Peach Wine Other (Specify): 

Cultivar: \_\_\_\_\_

Age / Plant date: \_\_\_\_\_

Rootstock: \_\_\_\_\_

Nursery: \_\_\_\_\_

Certified material? \_\_\_\_\_

**INFORMATION ON SAMPLE & SYMPTOMS****C**Sample: Complete plant 

Distribution of symptoms:

Leaves  Single plants (Enkele plante)Fruit  In patches (Kol-kol)Shoots  Scattered (Verspreid)Stem/Trunk  Large area (give ± % of block affected)Roots Appearance: 

Sudden	Gradual
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Soil On: 

New	Maturing	Old growth
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Other (Specify): \_\_\_\_\_

Soil type: \_\_\_\_\_

Water source: \_\_\_\_\_

Terrain: 

Sloped	Level	Low
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Drainage: 

Good	Moderate	Poor
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Irrigation: \_\_\_\_\_

**GENERAL REMARKS****D**

Last three fungicides and/or insecticides applied? \_\_\_\_\_

Fertilisers used recently: \_\_\_\_\_

Herbicides applied: \_\_\_\_\_

Previous nematode analysis: 

YES	NO
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Date of analysis: \_\_\_\_\_

Reason for this analysis / \_\_\_\_\_

Description of symptoms / \_\_\_\_\_

Comments: \_\_\_\_\_

**PROTEOMIC SAMPLE INFORMATION**

**E**

Type: microbial culture	<input type="text"/>	Organism/Species:	rattus	<input type="text"/>
animal tissue	<input type="text"/>		<i>E. coli</i>	<input type="text"/>
plant tissue	<input type="text"/>		<i>Saccharomyces</i>	<input type="text"/>
intact protein	<input type="text"/>		other (specify)	<input type="text"/>
protein extract	<input type="text"/>	Sample Form:	Describe: e.g. gel (1D/2D/native) and staining method (Coomassie; H&E, silver stain, etc), tissue section, dry, in solution ( Specify buffer component and concentrations)	
tryptical digests	<input type="text"/>			
peptides	<input type="text"/>			
polymers	<input type="text"/>			
other (specify)	<input type="text"/>			

FOR EACH SAMPLE THE FOLLOWING INFORMATION MUST BE PROVIDED

Sample number	Sample Name	MW(kDa)	Amount (mg) OR Concentration (mg/mL)	Transport/Storage/Package (dry ice, sunlight, etc)	Safety and toxicity considerations where applicable
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

Please indicate # of samples ↓

**Plant Pathology**

			Price / sample
Fungal pathogens	Visual identification (No report)		No cost
	Visual identification with report		R366,00
	Isolation from plant material		R945,00
	Isolation from soil / ARD		Price on request

Bacterial pathogens	PCR analysis		R824,25
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Phytoplasm	PCR analysis		R855,75
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**Entomology / Nematology**

Nematodes	Extraction, identification and counting of plant-parasitic nematodes up to genus level from roots & plant material		R168,00
	Extraction, identification and counting of plant-parasitic nematodes up to genus level from soil		R225,75
	Extraction, identification and counting of plant-parasitic nematodes up to genus level from roots & plant material and soil		R388,50
	Species-specific PCR for the identification of plant-parasitic nematodes up to species level		R614,25

Bud analysis	Bud analysis for mites (Cost per bunch of 12 canes - 3 buds per cane)		R241,50
	Bud analysis for fertility		R 4,30 per bud

Mealybug Trap counts			R31,5 per trap
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Insect & Mite Identification	Visual identification (No report)		No cost
	Visual identification with report		R336,00
	Red spider mite analysis (per sample, max. 10 plants per sample)		R283,50
	Cyclamen mite analysis (per sample, max. 10 plants per sample)		R231,00
	Taxonomic ID up to species level (AcFR: )		Price on request

Leasing of grapevine plots in the Disease Garden	Cost per plot per month		R42,26
Irradiation of organic	Irradiation of organic samples using the ARC Cobalt 60 source per hour		R945,00
Other	Specify		Price on request

**Consultation**

On Farm Consultation	Km-tariff (price per km)		R7,00
	Travel time rates (price per hour)		R315,00
	Consultation - time on farm (price per hour)		R630,00

**Proteomic Services**

Preliminary discussions on the optimized study designs are strongly recommended before sample submission. In particular, 1D/2D SDS PAGE samples must be submitted accompanied by a matching and labelled copy of the gel image in the proper front orientation, i.e., MW markers on the left, dye front at the bottom, where applicable.

Price on request

**AGRI-Food Analytic Laboratory**

Alpha Wine Analyzer (FT-IR Analysis)	Must – (°Balling, pH, Total Acidity (TA), Total sugar)		R136,50 per sample
	Fermenting Must – (Alcohol, Fructose, Glucose, Malic acid [MA], TA, Total sugar)		
	Wine – (Volatile acidity [VA], Alc, Fruc, Gluc, MA, pH, TA, Tot sug)		
	Table grape analysis - (°Balling, pH, TA)		

HPLC Analysis:	Flavonoids	1) Flavonols 2) Anthocyanins 3) Tannins 4) Flavanols	R1 071,00
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	Esters		Price on request
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GC-FID Analysis:	Higher alcohols		Price on request
	Total fatty acids		Price on request

Other:	Specify:		
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### DNA Analysis

Fingerprinting of plant material	1st sample using (RAPD, ISSR)		R2 976,75
	Subsequent samples		R855,75
	Microsatellite analysis (per sample)		R1 380,75

### Soil Enzyme Activities (soil quality/fertility)

β-Glucosidase		R238,35
Acid-Phosphatase		R238,35
Alkaline-Phosphatase (on request)		R238,35
Urease		R238,35
<b>Soil Alteration Index 3 (AI3)</b>		R238,35

### Microbial Analysis

Fingerprinting of yeast	1 Sample		R4 404,75
	2 samples		R2 205,00
	3 Samples		R1 491,00
	4-12 Samples		R1 155,00
	Urgent samples / yeast		R7 323,75

Microbial Analyses	Total yeast and bacteria: Bottled wine (two membrane filter method)		R357,00
	Total yeast cell counts: must; cloudy juice; active dried wine yeast		R504,00
	Total bacteria cell counts: must; wine undergoing MLF; MLB cultures		R504,00
	Total yeast counts: Microscopic (methylene blue staining)		R1 183,75
	Malo-lactic fermentation status (paper chromatography)		R99,75
	Microscopic evaluation		R47,25
	Yeast Handling fee		R656,25
	Yeast Identification (ID 32C)		R840,00
	Mass Loss (1-10 Fermentations)		R4 462,50
Chemical Spray Wines		R4 347,00	

### Cellar Services

Small-scale wine making (20 litres)		R1 998,00
Grape Ripeness Analysis		R109,59

Prices valid from 1 May 2021 to 31 March 2022

**Total cost:**

**Signature of Customer:** \_\_\_\_\_

**Date:** \_\_\_\_\_

# - Please note - No results will be sent out before proof of payment is received.

\_\_\_\_\_ **Prices include 15% VAT**

For office use:

Sample received by: \_\_\_\_\_

Signature: \_\_\_\_\_

NARPSU technician (if applicable): \_\_\_\_\_

Signature: \_\_\_\_\_

## DELIVERY ADDRESS AND CONTACT PERSON

S 33° 54' 54.338" E 18° 51' 36.983"  ARC Infruitec-Nietvoorbij, Nietvoorbij Campus, Adam Tas Road/R44, Stellenbosch, 7600	Fungal Pathogens	Abraham Vermeulen - vermeulena@arc.agric.za ; 021 809 3161 Bongiwe Sokwaliwa - sokwaliwab@arc.agric.za ; 021 809 3462
	Bacterial pathogens	Louise Smit - smittl@arc.agric.za ; 021 809 3484
	Bud fertility	Estelle Rhode - rhodee@arc.agric.za ; 021 809 3033
	AGRI-Food Analytic Laboratory	Valmary van Breda - vbreda@arc.agric.za; 021 809 3039 or 021 809 3019
	Soil Quality / Fertility	Isabella van Huyssteen - vhuyssteeni@arc.agric.za; 021 809 3153
	Microbial Analysis	Valmary van Breda - vbreda@arc.agric.za; 021 809 3039 or 021 809 3019
	Cellar Services	Jeremy Boonzaaier - boonzaierj@arc.agric.za; 021 809 3066

S 33° 55' 26.797" E 18° 52' 20.816"  ARC Infruitec-Nietvoorbij, Infruitec Northern Campus, Lelie Street, Stellenbosch, 7600	Nematodes	Dr Rinus Knoetze - knoetzer@arc.agric.za ; 021 809 3461
	Insect Identification & Budmite analysis	Muriel Knipe - knipem@arc.agric.za ; 021 809 3463 Dr Elleunorah Allsopp - allsoppe@arc.agric.za ; 021 809 3007
	Mealybug Trap Counts	Levicia Williams - williamsl@arc.agric.za ; 021 809 3425
	DNA Analysis (fingerprinting of plants)	Sieyaam Safodien- safodiens@arc.agric.za; 021 809 3481
	Bacterial and phytoplasma pathogen identification	Dr Yolanda Petersen - peterseny@arc.agric.za; 021 809 3479 Wendy Langenhoven - langenhovenw@arc.agric.za; 021 809 3488

National Agricultural Proteomics Research & Services Unit (NAPRSU), Department of Biotechnology, University of Western Cape, Robert Sobukwe Road Bellville 7535	Proteomic Services	Gadija Mohamed - mohamedg@arc.agric.za ; 021 959 2066 Prof Ndimba - ndimbab@arc.agric.za; 021 809 3000
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