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Despre miere!

UNIVERSITATEA DE STIINTE AGRICOLE SI MEDICINA VETERINARA

Rezultatele privind activitatea antimicrobiană a probelor de miere testate prin metoda difuzimetrică Kirby Bauer (mm zonă de inhibitie)

Concentratia bacteriană utilizată a fost de 10^5 ufc/ml

Diametrul discului utilizat este de 9 mm

Probele au fost solubilizate in alcool etilic 50%

Controlul pozitiv – gentamicina de concentratie 0,4 mg/ml

Probe	*Escherichia coli* ATCC 25922	*Staphylococcus aureus* ATCC 25923	*Salmonella enteritidis* ATCC 13076
Apiphen antibacterian	9	9	9
Miere Manuka	-	-	-
Miere Mana	9	-	-
Gentamicină	23,7	24,4	21,8

Fiecare valoare reprezinta media a trei repetitii

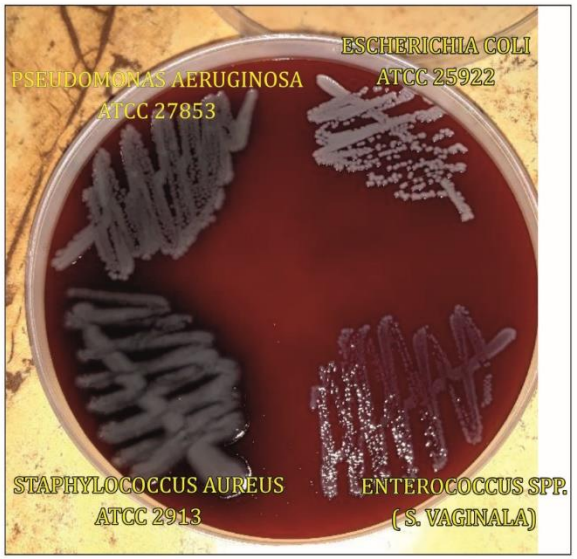
TESTARE ACTIVITATE ANTIBACTERIANĂ

1gr Apiphen Antibacterian

1gr miere poliflora

4gr miere Manuka

Se observa inhibitia cresterii bacteriene



About us

Team

History

Certification

Memberships

Mission of the Culture Collection

The CCOS is the national public culture collection for microorganisms in Switzerland. We accurately characterize and provide these strains in high quality for research and industry applications. We offer you the right strain for your application and aim to become a main repository for cell lines, bacteria and yeast strains as well as their plasmids.

Based on the knowledge of the culture collection we provide our customers high quality services such as backup solutions in cryostorage, lyophilisation and analytical services. We aim to achieve customer satisfaction and thereby good collaboration with our customers.

Table 1: Measured diameters in mm of primary, clear inhibition zones of tested honey samples against selected pathogens in agar well diffusion assay on Mueller Hinton agar

Pathogen	Diameter of primary inhibition zone [mm]				
	Apiphen honey	Roua Florilor honey	Manuka honey	Swiss honey	Gentamycin [10µg]
E. coli WDCM 00013	4	10	10	7	30.5
E. coli CCOS 41	9	6.5	6	8.5	27
E. faecalis WDCM 00087	10	10	8	9	32
E. faecalis CCOS 730	3.5	0.5	11	7	27
S. aureus WDCM 00131	12	21	15.5	17.5	41.5
S. aureus CCOS 666	10.5	19.5	15	14.5	33

Table 2: Measured diameters in mm of second, "reduced growth" zones of tested honey samples against selected pathogens in agar well diffusion assay on Mueller Hinton agar

Pathogen	Diameter of "reduced growth" zone [mm [mm]				
	Apiphen honey	Roua Florilor honey	Manuka honey	Swiss honey	Gentamycin [10µg]
E. coli WDCM 00013	25.5	26	29.5	27	nd
E. coli CCOS 41	nd*	48.5	nd	nd	nd
E. faecalis WDCM 00087	nd	nd	nd	nd	nd
E. faecalis CCOS 730	29.5	24	27	25	nd
S. aureus WDCM 00131	nd	43	nd	nd	nd
S. aureus CCOS 666	44.5	42	47	47	nd

*nd: none detected

Conclusions

All honey samples showed inhibitory properties against the tested pathogens. The strongest inhibitions was observed for Roua Florilor honey, largest inhibition zone for 4 of the 6 bacteria. Apiphen and Manuka Honey, showed for 2 Bacteria a greater inhibition zone than the other honey samples.

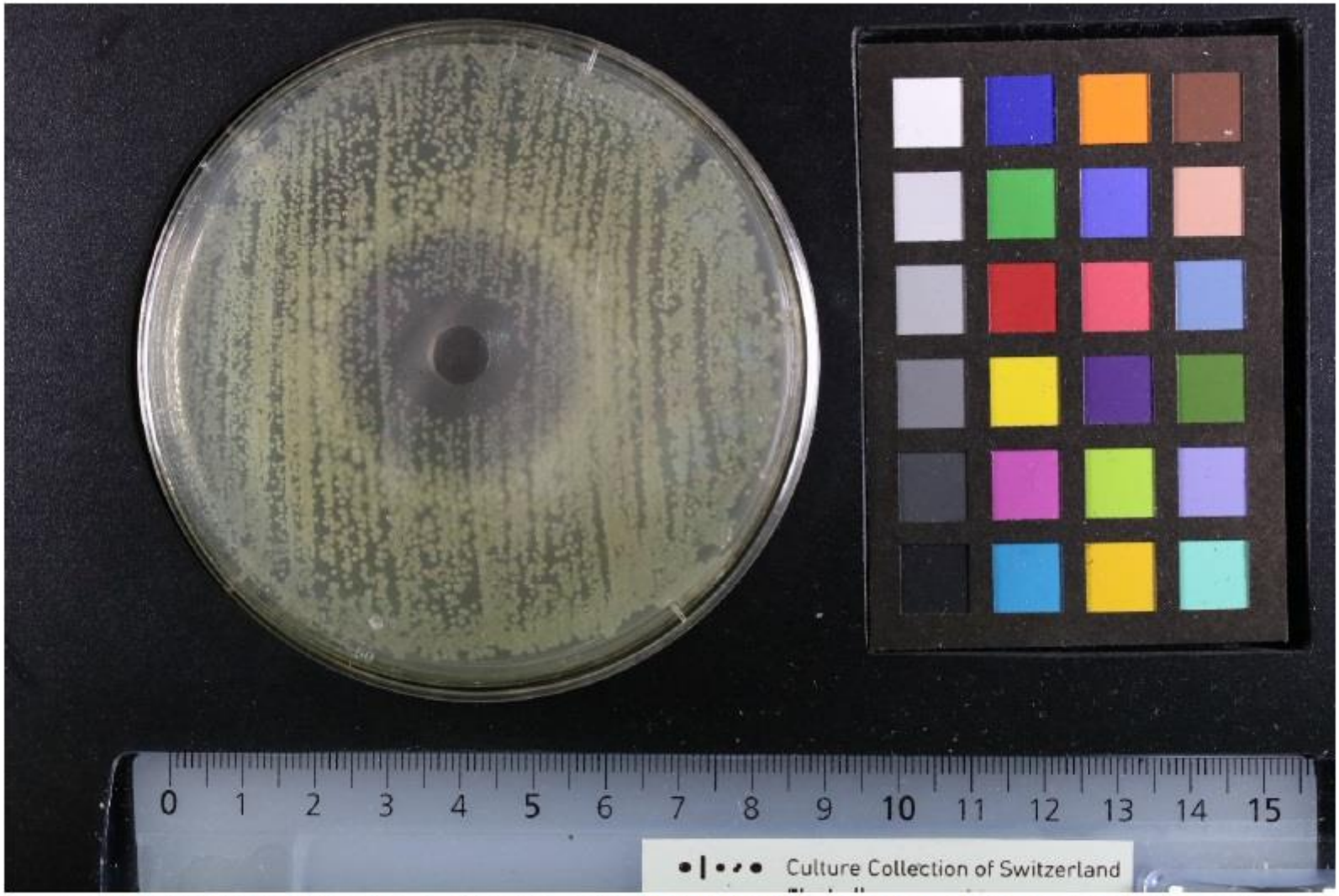
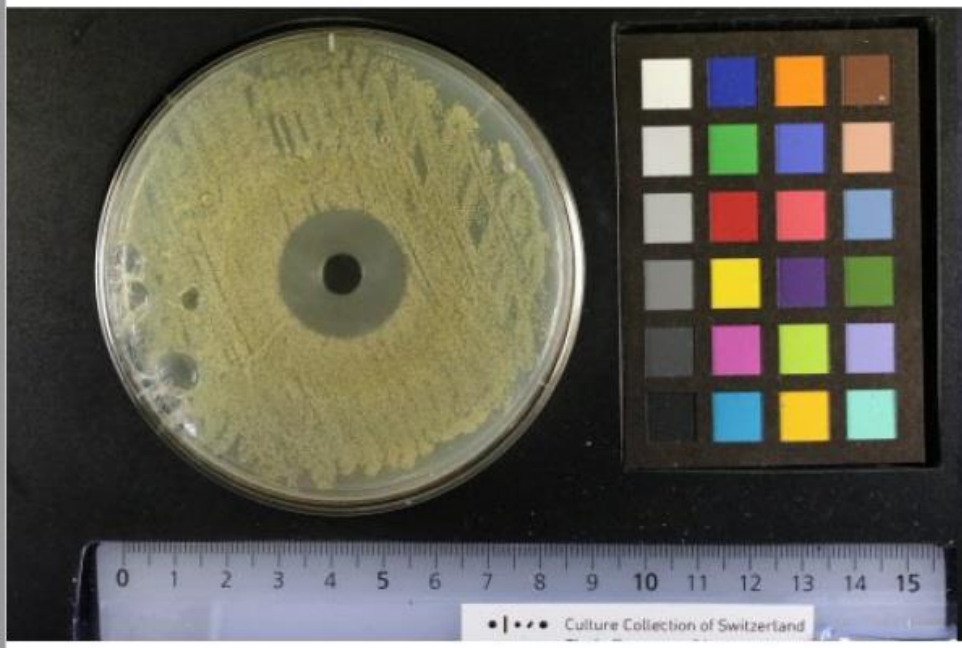
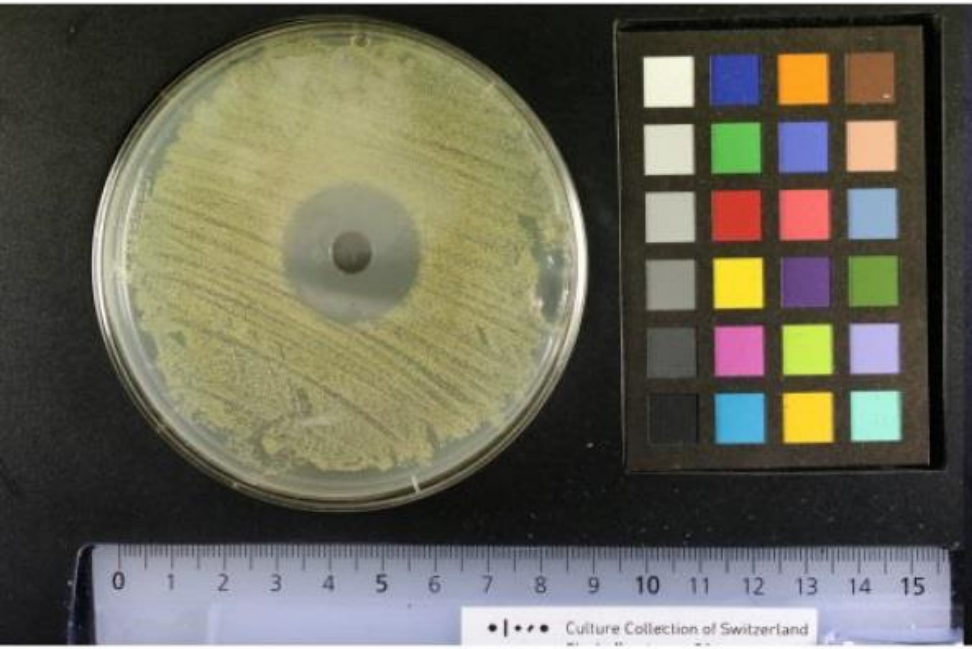


Figure 1 Roua Florilor tested against *E. coli* WDCM 00013. Innermost, a clear zone of complete inhibition is observed, followed by a second zone of reduced growth.



CRM-106_MH1_1_a_Roua_WDCM_00131.JPG

CRM-106_MH1_1_a_Roua_WDCM_00013.JPG



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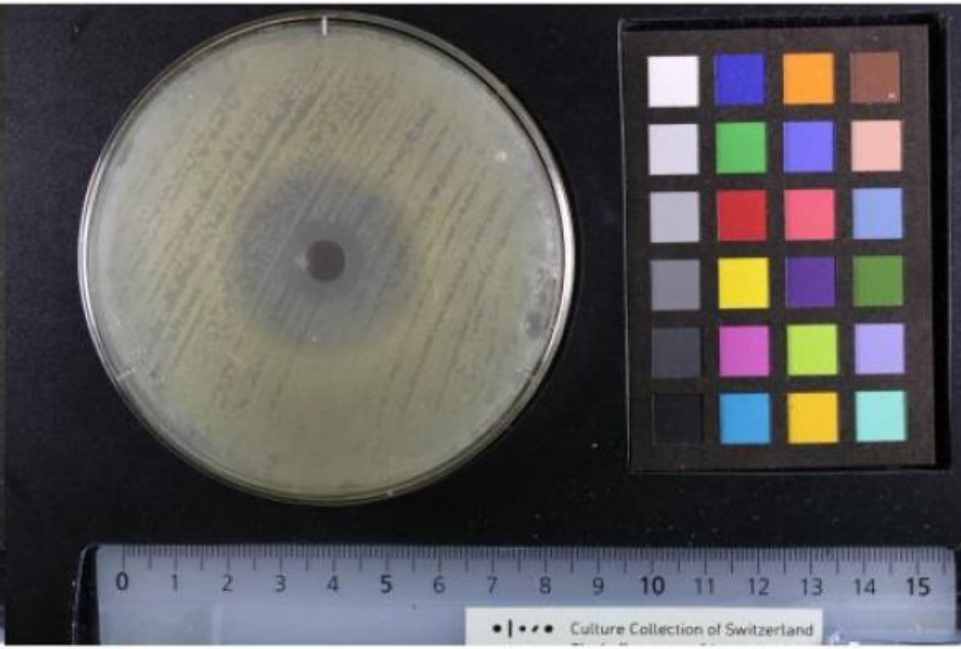

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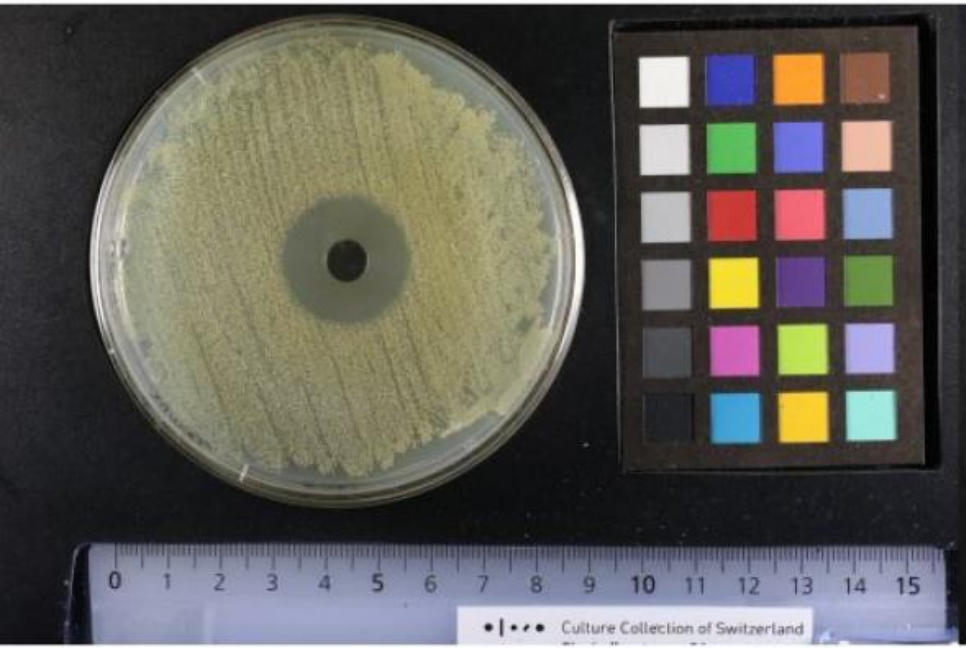

CRM-106_MH1_1_a_Manuka_WDCM_00131.JPG

CRM-106_MH1_1_a_Manuka_WDCM_00013.JPG

CCOS Culture Collection of Switzerland AG Einsiedlerstr. 34, CH 8820 Wädenswil

Analysis Report: Antimicobiaal activi tesesting

Customer:	PHENALEX	Order No: CRM-91/CRM-122	Customer No: 1121	Analysis Date: 23.08.2019/01.11.2019

				Minimal Inhibitory Concentration (MIC)*							
				Microdilution				Agar dilution			
				g/L	g/L	g/L	mg/L	g/L	g/L	g/L	mg/L
Strain Code	Species		Strain info	Manuka Honey	Apiphen antibacterian	Swiss Honey	Gentamycin	Manuka	Apiphen antibacterian	Schweizer Honug	Gentamicin
CCOS 41	*Enterococcus*	*faecalis*	Res.	250	31.25	250	8	250	62.5	250	8
WDCM 00087	*Enterococcus*	*faecalis*	Ref.	250	3.90625	250	4	250	3.90625	250	2
CCOS 730	*Escherichia*	*coli*	Res.	250	62.5	250	64	250	125	250	128
WDCM 00013	*Escherichia*	*coli*	Ref.	250	62.5	250	1	250	125	250	2
CCOS 666	*Staphylococcus*	*aureus*	Res.	250	15.625	125	8	125	31.25	62.5	2
WDCM 00131	*Staphylococcus*	*aureus*	Ref.	250	7.8125	125	1	250	15.63	62.5	1
Measurement uncertainty:				± log2				± log2			

Res: Multiple Antibiotic resistant isolates
- CCOS 41 tetracycline, chloramphenicol, lincomycom, erythromycin, gentamicin
- CCOS 730 ESBL
- CCOS 666 MRSA

Ref.: ISO 20776-1 reference strains