~ <b>*</b>	r	
·•		
	1 <u></u>	
	Anaerobic Bacteria from the	Human Colon
	ABIGAIL A. SALYERS, <sup>1*</sup> SUSAN E. H. WEST, <sup>1</sup> JC	DHN R. VERCELLOTTL <sup>2</sup> AND
	TRACY D. WILKINS	W* · · · ·
	Anaerobe Laboratory <sup>1</sup> and Department of Biod	
-		
	1',	

Table 1_Snecies of intestinal bacteria       unit (from 7.0 to 6.0) as compared with uninoculated	a. <u> </u>	530	SALVERS ET AL	APPL. ENVIRON. MICROBIOL.
	-	•., ف	·	
	:	1	<u> Fable 1 Species of intestinal b</u>	bacteria unit (from 7.0 to 6.0) as compared with uninoculated
	•			
	10 <u></u>	£.4		
		<u> </u>		
	r		&	
	r <sup>91</sup>		rc	
	<i>k</i> .			
	-	ř <u>.</u>		
	, <u> </u>			
	-			
	)			
	<u></u>			
	4			
	# <b></b>			
	l. R L			
	·			
			, <u> </u>	
	د بناریند دهم د			
			<u>,                                     </u>	
	ų.			
	4 No. 1			
	1 <u>.                                    </u>			
	1			

Table 2. Num	Table 2. Number of strains of bacterial species from the human colon which ferment monosaccharides and plant polysaccharides	<sup>r</sup> bacterial s	species from	the human	colon which f	ferment mo	nosaccharia	les and plant p	olysacchan	des
bstrate	B. adolescentis (11) <sup>a</sup>	B. breve (5)	B. infantis (11)	B. longum (10)	E. aerofaciens (15)	E. eligens (5)	E. rectale (20)	P. productus (8)	R. albus (5)	R. bromii (8)
nosaccharides										
glucosamine <sup>c</sup>	<i>q</i>	I	I	1	7	I	1	4	I	ł
L-fucòse <sup>d</sup>	I	3	ł	I	I	2	1	6	I	I
lysaccharides										
amylose	7	5	2		2	I	I	1	I	6
amylopectin	10	5	6	I	ŝ	I	12	1	I	8
xylan	8	I	8	I	I	ł	I	1	I	I
larch arabinogalactan	I	I	I	10	I	I	I	I	I	I
gum guar	1	I	I	I	I	I	ł	I	5	I
gum locust bean	1	ł	I	I	I	I	I	I	5	I
gum arabic	I	ł	ł	ŝ	Ι	I	1	Ι	ł	I
gum ghatti	1	l	I	÷	1	ł	Ι	I	I	I
gum tragacanth	I	I	ł	9	ł	I	I	I	I	I
pectin	1	I	I	I	I	ŝ	I	I	I	I
polygalacturonate	I	ł	1	ł	I	2	I	I	Ι	I
laminarin	I	I	1	I	1	I	I	1	I	ł
umber of strains tested.	ed.									
<ul> <li>, substrate not fermented by any of strains tested.</li> </ul>	mented by any	of strains t	ested.			-				
Iso retinenced by one of four strains of <i>B. byfaum</i> , by + of 5 strains of <i>L. actaoppiuus</i> , and by + of 5 strains of <i>E. byforme</i> . Iso fermented by all 5 strains of <i>R. gnavus</i> , by 10 of 12 strains of anaerobic cocci, and by 1 of 5 strains of <i>E. biforme</i> .	5 strains of <i>R</i> .	01 B. <i>b</i> ijia gnavus, by	<i>um</i> , by 4 01 10 of 12 stra	o strains of ins of anae	<i>L. actaopptuu</i> robic cocci, ar	s, and by 4 nd by 1 of 5	or 5 strains strains of 1	e ot E. bijorme E. biforme.		

Vol. 34, 1977

\_\_\_\_

*n*≥\_\_\_\_

## 532 SALYERS ET AL.

APPL. ENVIRON. MICROBIOL.

all strains of R. albus (Table 2). Unlike R. albus fermented as wide a range of complex carbohy-

	strains from the bovine rumen (5), these R. drates as the Bacteroides species reported pre- albus strains did not ferment xvlan. Human R. viously (18). Some substances, such as alginate.
· · · · · · · · · · · · · · · · · · ·	
6	
.l	
<b>  </b>	
f	
<i></i>	
	strains in their ability to ferment cellulose and ovomucoid. which were fermented by several
	may actually belong to different species (1). Pec- tin and nolvgalacturonate were fermented by of the species tested in this survey. All of these

Vol. 34. 1977	CARBOHYDRATE FER	MENTATION BY COLON	BACTERIA 533	
of human mucin. such as	s fucose and hexosa-	mode of action. Adv. Cart	oohydr. Chem. Biochem.	
······································			• •	
	<u> </u>			
17 <del></del>				
1 <b>2</b>				
t				
	¥			
			97 T	
\$				
, w ' ba	L 1			