

Table 1: Volatile chemicals from the different flies or labelled food sources tested in the wind tunnel, identified using Headspace-Solid Phase Micro-Extraction-GC-Mass Spectrometry (HS-SPME-GC-MS).

The X indicates the occurrence of the compound in SPME sampling of 25 *D. melanogaster* (or *D. simulans*) females and males without food or on 5 g of plain food.

		Melano.				Simulans						Melano.				Simulans					
		#	No Food		Food		No Food		Food			#	No Food		Food		No Food		Food		
			F	M	F	M	F	M	F	M			F	M	F	M	F	M	F	M	
ACIDS	Acethydrazide	1			X							Octanol	49				X	X			
	Acetic acid	2			X							Pentanol	50			X					
	Isovaleric acid	3			X							2-Phenyl-ethanol	51								
	Decanoic acid	4					X					Phenylmethanol	52								
	Heptanoic acid	5							X		ESTERS										
	Hexanoic acid	6				X						Isoamyl acetate	53								
	Octanoic acid	7										1,2,4-Benzenetricarboxylic acid, 1,2-dimethyl ester	54								
	Propanoic acid	8					X	X	X			Ethyl acetate	55	X	X		X				
	Isobutyric acid	9				X						Benzoic acid, 2-methoxy-,methyl ester	56								
	Pyruvic acid	10										Benzoic acid, 3-hydroxy-,methyl ester	57								
										Benzoic acid, 2-hydroxy-,methyl ester		58									
										Methyl anisate		59						X			
										Butanoic acid, 3-hydroxy-,ethyl ester		60				X					
										Ethyl butyrate		61				X					
ALDEHYDS	3-Methyl-2-butenal	11										Ethyl caprate	62			X					
	2-Hexenal	12										Ethyl laurate	63								
	2-Meethyl butanal	13										Ethyl 9-decenoate	64			X					
	3-Methyl butanal	14										Ethyl hexanoate	65			X					
	Ethanal	15			X							Isoamyl butyrate	66								
	Benzaldehyde	16						X	X			Isobutyl acetate	67								
	Butanal	17						X	X			Isobutyl butanoate	68								
	Decanal	18					X	X	X			Isoamyl decanoate	69								
	Dodecanal	19					X		X		Various										
	Heptanal	20						X				1-Aziridineethanamine	72								
Hexanal	21									4-Nonyne		73									
Nonanal	22								X			5,5-Dimethyl-2(5H)-furanone	74			X					
Octanal	23								X			2-Pentylfuran	75								
Pentanal	24					X		X				5-Ethylcyclopent-1-enecarboxaldehyde	76								
Undecanal	25							X				Acetamide	77					X			
												4-Methoxybenzaloxime	78				X				
												Benzoyl bromide	79	X	X						
												Dimethyl disulfide	80						X		
CETONES	Butanone	26										2-Butoxyethanol	81				X		X		
	Hydroxy-3-butanone-2	27	X	X		X						Ethoxyethene	82				X		X		
	3-Methyl-2-butanone	28										sec-Butylisopropyl ether	83				X				
	3-Methyl-2-pentanone	29										Geranylacetone	84								
	4-Methyl-2-pentanone	30							X			3-Methoxy-hexane	85				X				
	3-Methyl-3-buten-2-one	31					X					Humulene	86						X		
	6-Methyl-5-hepten-2-one	32				X	X	X				Phenylmethane	87				X	X			
	Acetone	33	X	X								Methyl-D3 1,1-dideutero-2-propenyl ether	88				X	X			
												Methyl-paraben	89	X	X						
												Methoxy-phenyl-oxime	90	X	X		X				
ALCOOLS	2-Methyl-1-butanol	34					X		X			Styrene	91								
	1,3-Butanediol	35										Triacetine	92				X				
	2,3-Butanediol	36					X					α -Caryophyllene	93			X					
	3-Methyl-2-butanol	37										β -Caryophyllène	94								
	2-Methyl-3-buten-2-ol	38										11-Tetradecen-1-ol acetate	95						X		
	2-Pentanol	39						X	X			3-Methyl-1-butanamine	96					X			
	Hexanol	40										2-Butanamine	97				X		X		
	2-Hexanol	41							X			N-Methyl-methanamine	98						X		
	3-Methyl-butanol	42						X				Octane	99					X			
	4-Methyl-pentanol	43							X												
Butanol	44								X												
Ethanol	45	X	X																		
Heptanol	46						X	X													
2-Propanol	47				X																
Nonanol	48								X												