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(71) Applicant (for all designated States except US): ZENECA LIMITED [GB/GB]; 15 Stanhope Gate, London W1Y 6LN (GB).			
(72) Inventors; and			
(75) Inventors/Applicants (for US only): URCH, Christopher, John [GB/GB]; Zeneca Agrochemicals, Jealott's Hill Research Station, Bracknell, Berkshire RG42 6ET (GB). LEWIS, Terence [GB/GB]; Zeneca Agrochemicals, Jealott's Hill Research Station, Bracknell, Berkshire RG42 6ET (GB). (3) SUNLEY, Raymond, Leo [GB/GB]; Zeneca Agrochemicals, Jealott's Hill Research Station, Bracknell, Berkshire RG42 6ET (GB). SALMON, Raymond [GB/GB]; Zeneca Agrochemicals, Jealott's Hill Research Station, Bracknell, Berkshire RG42 6ET (GB). GODFREY, Christopher, Richard, Ayles [GB/GB]; Zeneca Agrochemicals, Jealott's Hill Research Station, Bracknell, Berkshire RG42 6ET (GB).			
(54) Title: 8-AZABICYCLO[3.2.1]OCTANE-, 8-AZABICYCLO[3.2.1]OCT-6-ENE-, 9-AZABICYCLO[3.3.1]NONANE-, 9-AZA-3-OXABICYCLO[3.3.1]NONANE- AND 9-AZA-3-THIABICYCLO[3.3.1]NONANE / DERIVATIVES, THEIR PREPARATION AND THEIR USE AS INSECTICIDES			
(57) Abstract A compound of formula (I) wherein A represents a bidentate group of the formula -CH ₂ -X-CH ₂ - (wherein X is methylene, sulfur or oxygen), X'C=CY or X'WC-CYZ (wherein X', W, Y and Z are independently hydrogen, hydroxy, acyloxy, alkoxy, alkylsilyloxy, cyano or halogen, or X' and W or Y and Z together with the carbon to which they are attached form a carbonyl group), provided that A is not CH ₂ -CH ₂ ; Ar is an optionally substituted phenyl or 5- or 6-membered heterocyclic ring system containing from 1 to 3 heteroatoms individually selected from nitrogen, oxygen and sulfur atoms, and at least one unsaturation (double bond) between adjacent atoms in the ring, said heterocyclic ring being optionally fused to a benzene ring, wherein the substituents, if present, are selected from halogen atoms, cyano, alkyl, alkenyl, alkynyl, alkoxy, haloalkyl, haloalkenyl, alkylthio and alkyl amino groups, any of which groups contain up to six carbon atoms; R is hydrogen or cyano or a group selected from alkyl, aryl, heteroaryl, aralkyl, heteroarylalkyl, alkenyl, aralkenyl, alkynyl, alkoxycarbonyl, alkanesulfonyl, arenesulfonyl, alkenyloxycarbonyl, aralkyloxycarbonyl, aryloxycarbonyl, heterocyclylalkyl, carbamyl, dithiocarbonyl or X''R ³ (where X'' represents oxygen or a group NR ⁴), provided that when R is alkenyl, aralkenyl or alkynyl said group does not have an unsaturated carbon atom bonding directly to the ring nitrogen of formula (I); R ¹ is hydrogen, cyano, hydroxy, alkyl, alkoxy, amino, nitro, isocyanato, acylamino, hydroxyalkyl, optionally substituted heteroaryl, alkoxyalkyl, haloalkyl, haloalkoxyalkyl, aralkyloxyalkyl, acyloxyalkyl, amidoximido, sulfonyloxyalkyl, aminoalkyl, alkoxycarbonylamino, acylaminoalkyl, cyanoalkyl, imino, formyl, acyl or carboxylic acid or an ester or amide thereof, or alkenyl or alkynyl either of which is optionally substituted by halogen, alkoxy, cycloalkyl, optionally substituted aryl, optionally substituted heteroaryl or cyano; R ³ and R ⁴ are, independently, hydrogen, alkyl, aryl, heteroaryl, aralkyl, heteroarylalkyl, alkenyl, aralkenyl, alkynyl, heterocyclylalkyl, alkoxycarbonyl or carboxylic acyl; alkyl moieties of R, R ³ and R ⁴ comprise from 1 to 15 carbon atoms, and are optionally substituted with one or more substituents selected from, halogen, cyano, carboxyl, carboxylic acyl, carbamyl, alkoxycarbonyl, alkoxy, alkylenedioxy, hydroxy, nitro, amino, acylamino, imidate and phosphonato groups; aryl, heteroaryl, aralkyl, heteroarylalkyl, alkenyl, aralkenyl, alkynyl, alkoxycarbonyl, alkanesulfonyl, arenesulfonyl, alkenyloxycarbonyl, aralkyloxycarbonyl, aryloxycarbonyl, heterocyclylalkyl, carbamyl, dithiocarbonyl moieties of R, R ³ and R ⁴ comprise from 1 to 15 carbon atoms, and are optionally substituted with one or more substituents selected from, halogen, cyano, carboxyl, carboxylic acyl, carbamyl, alkoxycarbonyl, alkoxy, alkylenedioxy, hydroxy, nitro, haloalkyl, alkyl, amino, acylamino, imidate and phosphonato groups; or an acid addition salt, quaternary ammonium salt or N-oxide derived therefrom; an insecticidal, acaricidal or nematocidal composition comprising a compound of formula (I) and a suitable carrier or diluent therefor; a method of combating and controlling insect, acarine or nematode pests at a locus which comprises treating the pests or the locus of the pests with an effective amount of a compound of formula (I) or a composition as hereinbefore described.			