

GROWERTALKS

Features

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Chemical Changes

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Staying on top of chemical introductions and code changes can be a full-time job and one that greenhouse professionals are hesitant to take on. It's best left to academic researchers and chemical companies.

GrowerTalks reached out to these folks to bring you the latest updates on new classes and products that have come to market in the past five years. Here's the list.

It may not be comprehensive, but we've done our best to include the fungicides and insecticides that are most important to greenhouses across North America (with FRAC classes, products and manufacturers indicated when possible). We didn't include new Modes of Action (MOA), but be aware that these are also changing annually, so be sure to consult your chemical suppliers with any questions or for updates. **GT**

Special thanks to experts at Bayer, Syngenta and IR-4 for their help assembling this list.

Fungicides

7: isofetamid—Astun (OHP)

BM01: Banda de *Lupinus albus* doce (BLAD)—Regime (FMC)

BM02: *Ulocladium oudemansii* (U3 Strain)—Botrystop (Bioworks)

NC: *Trichoderma asperellum*—Obtego (SePRO)

NC: Extract of *Reynoutria sachalinensis*—Regallia MAXX (Marrone)

Biological: *Bacillus amyloliquefaciens* strain F727—Stargus (Marrone)

7+11: fluopyram + trifloxystrobin—Broadform (Bayer)

P05: Extract of *Swinglea glutinosa*—EcoSwing (Gowan)

7+11: benzovindiflupyr + azoxystrobin—Mural (Syngenta)

7+11: fluxapyroxad + pyraclostrobin—Orkestra Intrinsic (BASF)

49: oxithiapiropolin—Segovis (Syngenta)

IRAC UN: pyrifluquinazon—Rycar (SePRO)

Insecticides

4D: flupyradifurone—Altus (Bayer)

9D: afidopyropen—Ventigra (BASF)

11A: *Bacillus thuringiensis* subspecies *Galleriae*—beetleGone, grubGone (Phyllium Bioproducts)

21: fenazaquin—Magus (Gowan)

25A: cyflumetofen—Sultan (BASF)

28: cyantraniliprole—Mainspring (Syngenta)

28: cyclaniliprole—Sarisa, Pradia (OHP)

32: GS-omega/kappa-Hxtx-Hv1a—Spear T (Vestaron)