



FireLine™ & FireWall™ Applications for HLB Need Not Be Tied to Growth “Flushes” in Citrus

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The effectiveness of FireLine and FireWall foliar applications against ‘*Candidatus Liberibacter asiaticus*’ (CLas), the bacterial pathogen responsible for Huanglongbing (HLB) in citrus, relies upon penetrating the leaf surface and then moving systemically through the tree’s vascular network (phloem and xylem). Since leaves represent the first barrier to entry, FireLine and FireWall applications timed to coincide with growth “flushes” may be thought to facilitate performance. Research by AgroSource, however, provides evidence that FireLine and FireWall applications need not be timed to coincide with citrus growth flushes to be effective against CLas. **The key to this flexibility is the inclusion of specific adjuvants or nutritionals proven to facilitate penetration and systemic activity when FireLine and FireWall are applied to citrus.**

Since 2013, AgroSource, in cooperation with the USDA-ARS in Fort Pierce, has proven the flexibility of FireLine and FireWall use in large-scale research trials in commercial citrus on ‘*Valencia*’, ‘*Hamlin*’ and grapefruit across 17 commercially managed groves in Florida. In these trials, applications of FireLine and FireWall were made in the spring, summer and fall, during early morning and daylight hours, without regard to flush. Results demonstrated applications of FireLine and FireWall, when combined with certain specific adjuvants or nutritionals, were efficacious against CLas regardless of which leaf growth stage applications were made.

While FireLine and FireWall applications certainly *may* be timed to coincide with growth flushes, this research indicates efficacious results against CLas in Florida citrus may be obtained even when FireLine and FireWall applications are made outside normal growth flush periods. Note, however, that these results pertain to only those adjuvants and nutritionals used with FireLine and FireWall; results with other adjuvants or other bactericides may not be comparable. See the tables at right for recommended adjuvants and/or nutritionals when applying FireLine and FireWall to citrus in Florida for management of HLB. FireLine and FireWall tank mixes should be used with adjuvant Trade Names that are common to both.

FireLine™ 17 WP	
Product Type	Trade Name
Adjuvant	COHERE®
	EXIT®
	JOINT VENTURE®
	GROUND®
	LI 700®
Nutritional	TACTIC™
Nutritional	KeyPlex® 445 DP®

FireWall™ 50 WP	
Product Type	Trade Name
Adjuvant	COHERE®
	EXIT®
	JOINT VENTURE®
	GROUND®
	PHASE®
Nutritional	TACTIC™
	CoRoN®
	KeyPlex® 445DP®
Nutritional	NUTRISYNC® ZINC
Nutritional	N-Sure®

For more detailed information about **FireLine™ 17 WP** and **FireWall™ 50 WP** bactericides, please contact AgroSource Florida sales representative Bo Meador at (863) 673-0727 and bo.meador@agrosource.net. You can also email us at sales@agrosource.net or visit us on the web at www.agrosource.net