Probing Stimulants from the Rice Plant towards the Smaller Brown Planthopper, Laodelphax striatellus (FALLÉN) (Homoptera: Delphacidae) Francis Adjei-Afrivie, Chul-Sa Kim*, Masami

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When adult males of the smaller brown planthopper. Laodelphax striatellus were fed on 2% crude rice (leaf and stem) extract containing 15% sucrose there were characteristic stylet sheaths deposited on parafilm membrane. Further bioassays with the butanol-soluble fr. of the extract revealed that it is highly effective for the insects. When the butanol fr. was charged on an ODS open column and eluted in sequence with 20, 40 and 100% methanol in water, the ODS-40% methanol fr. was shown as the most effective one. Further separation of the ODS-40% methanol fr. resulted in six effective components. These components acted to stimulate very high probing response on L. striatellus only when they are combined. This activity was found to be similar to those of the ODS-40% methanol fr. and the original crude rice plant extract. Two of the active components were identified as tricin 5-O-glucoside and tricin 7-O-glucoside, respectively, through spectroscopic analyses.