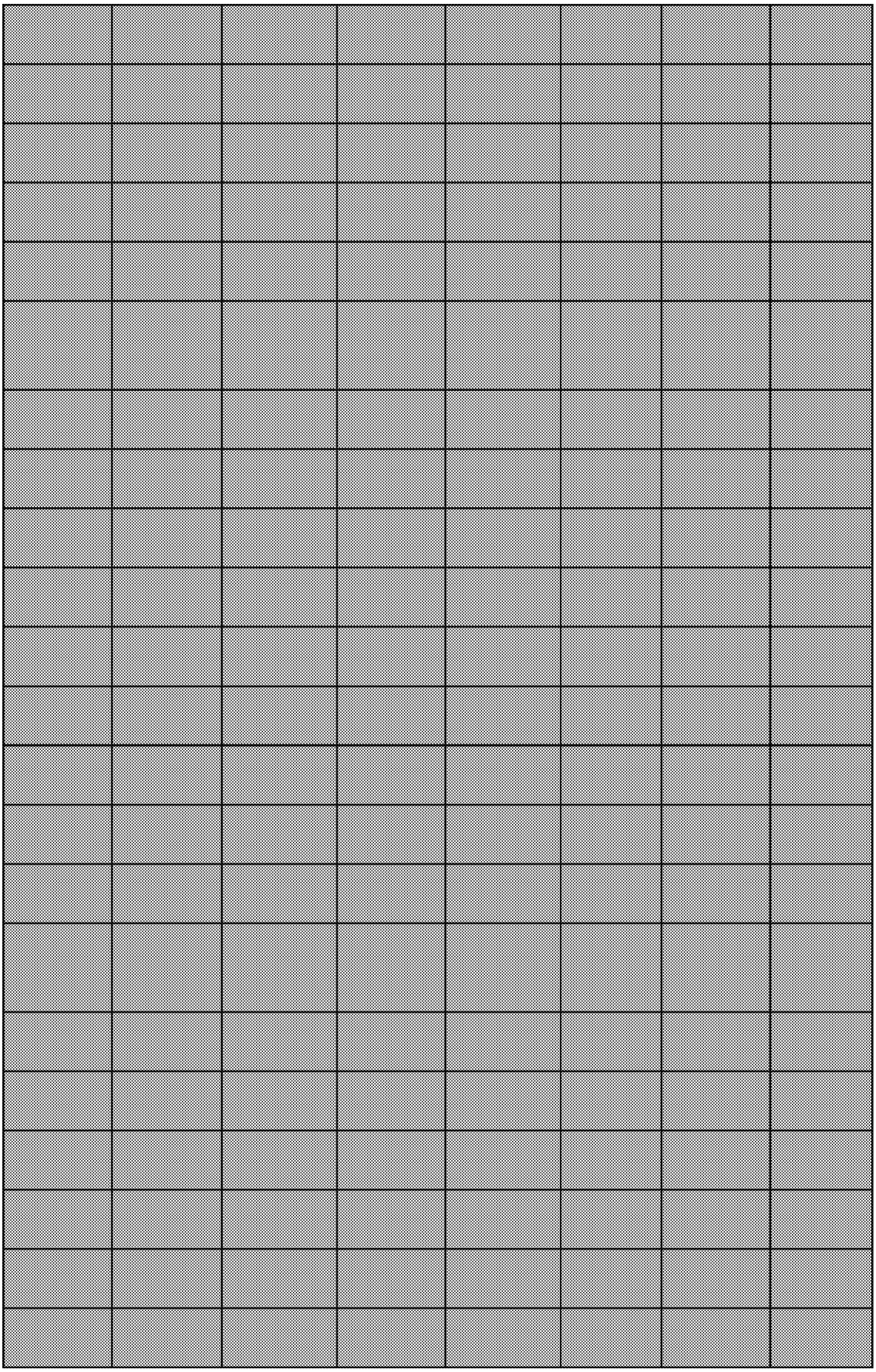
Level 1
Level 1
Level 1
Level 1
Level 1
Level 1
Level 1
Level 1
Level 1
Level 1
Level 1
Level 1
Level 1
Level 1
Level 1
Level 1
Level 1
Level 1
Level 1
Level 1
Level 1
Level 1
Level 1



3784
3785
3786
3788
3789
3790
3791
3792
3793
3794
3795
3796
3797
3798
3799
3800
3801
3802

S. Y. Ahn Kwon. Biochemical characterization of transgenic tobacco plants expressing a human dehydroascorbate reductase gene. Journal of Biochemistry and Molecular Biology. 2001. 34:316-321
A. Kazan Altinkut. Tolerance to paraquat is correlated with the traits associated with water stress tolerance in segregating F-2 populations of barley and wheat. Euphytica. 2001. 121:81-86
U. Good Basu. Transgenic Brassica napus plants overexpressing aluminium-induced mitochondrial manganese superoxide dismutase cDNA are resistant to aluminium. Plant Cell and Environment. 2001. 24:1269-1278
E. Kuzniak. Transgenic plants: An insight into oxidative stress tolerance mechanisms. Acta Physiologiae Plantarum. 2002. 24:97-113
S. Y. Jeong Kwon. Enhanced tolerances of transgenic tobacco plants expressing both superoxide dismutase and ascorbate peroxidase in chloroplasts against methyl viologen-mediated oxidative stress. Plant Cell and Environment. 2002. 25:873-882
I. S. Momose Shim. Inhibition of catalase activity by oxidative stress and its relationship to salicylic acid accumulation in plants. Plant Growth Regulation. 2003. 39:285-292
H. R. Melchiorre Lascano. Effect of photooxidative stress induced by paraquat in two wheat cultivars with differential tolerance to water stress. Plant Science. 2003. 164:841-848
M. Turakainen Seppanen. Selenium effects on oxidative stress in potato. Plant Science. 2003. 165:311-319
Y. Narusaka Narusaka. Expression profiles of Arabidopsis phospholipase A IIA gene in response to biotic and abiotic stresses. Plant and Cell Physiology. 2003. 44:1246-1252
E. A. Iwaki Mohamed. Overexpression of bacterial catalase in tomato leaf chloroplasts enhances photo-oxidative stress tolerance. Plant Cell and Environment. 2003. 26:2037-2046
T. Saji Fujibe. A methyl viologen-resistant mutant of Arabidopsis, which is allelic to ozone-sensitive rcd1, is tolerant to supplemental ultraviolet-B irradiation. Plant Physiology. 2004. 134:275-285
G. H. Yamauchi Badawi. Enhanced tolerance to salt stress and water deficit by overexpressing superoxide dismutase in tobacco (Nicotiana tabacum) chloroplasts. Plant Science. 2004. 166:919-928
R. Lazar Kouril. Moderately elevated temperature eliminates resistance of rice plants with enhanced expression of glutathione reductase to intensive photooxidative stress. Photosynthetica. 2003. 41:571-578
E. A. Bartoli Tambussi. Oxidative stress and photodamage at low temperatures in soybean (Glycine max L. Merr.) leaves. Plant Science. 2004. 167:19-26
H. S. Jo Lee. Increased tolerance to methyl viologen by transgenic tobacco plants that over-express the cytosolic glutathione reductase gene from Brassica campestris. Journal of Plant Biology. 2004. 47:111-116
J. C. Sanchez Cuevas. Do polyamines modulate the Lotus glaber NADPH oxidation activity induced by the herbicide methyl viologen?. Functional Plant Biology. 2004. 31:921-928
M. Casano Martin. Role of thylakoid Ndh complex and peroxidase in the protection against photo-oxidative stress: fluorescence and enzyme activities in wild-type and ndhF-deficient tobacco. Physiologia Plantarum. 2004. 122:443-452
K. Rahman Yamane. Pretreatment with a low concentration of methyl viologen decreases the effects of salt stress on chloroplast ultrastructure in rice leaves (Oryza sativa L.). Plant Production Science. 2004. 7:435-441

Dehydroascorbate (DHA) reductase (DHAR, EC 1.8.5.1) catalyzes the reduction of DHA to reduced ascorbate (AsA) using g
To identify scorable marker traits that can be used in cereal breeding programs for selecting drought tolerant individuals,
We investigated the role that manganese superoxide dismutase (MnSOD, EC 1.15.1.1), an important enzyme of the antio
Environmental stresses considerably limit plant productivity. At the molecular level the negative effect of stress is often r
In order to better understand the role of antioxidant enzymes in plant stress protection mechanisms, transgenic tobacco
The decrease in catalase activity and its relationship to change in salicylic acid content were investigated in rice, wheat, a
We previously demonstrated that the differential water stress tolerance of two wheat cvs (Triticum aestivum L cvs Oasis
Higher plants are considered not to require selenium (Se). However, it has recently been shown that Se increases the ant
We examined the transcripts that showed changes among the ca.7,000 Arabidopsis full-length cDNAs under biotic and ab
The Escherichia coli gene katE, which is driven by the promoter of the Rubisco small subunit gene of tomato, rbcS3C, was
To better understand the role of active oxygen species (AOS) in acquired resistance to increased levels of ultraviolet (UV)
A chimeric gene consisting of the coding sequence for cytosolic Cu/Zn-superoxide dismutases (SOD) from Oryza sativa fu
We developed transgenic rice plants (Oryza sativa L. cv. Daeribbyeo) overproducing cytosolic glutathione reductase (GR)
Low temperatures severely limit photosynthesis and growth of chilling-sensitive species. The decrease in photosynthetic
We placed BcGR1, a Chinese cabbage (Brassica campestris var. Pekinensis) gene that encodes cytosolic glutathione reduc
In recent years, there has been a growing interest in NADPH oxidases which are involved in the active generation of reac
An Ndh-deficient mutant of tobacco (Nicotiana tabacum cv. Petit Havana) was prepared by disrupting the ndhF gene in a
We investigated the effects of pretreatment with a low concentration of methyl viologen (MV) on the salinity-induced ch

Not Relevant
Not Relevant
Not Relevant
Not Relevant
Not Relevant
Not Relevant
Not Relevant
Not Relevant
Not Relevant
Not Relevant
Not Relevant
Not Relevant
Not Relevant
Not Relevant
Not Relevant
Not Relevant
Not Relevant
Not Relevant

Level 1

Level 1

Level 1

Level 1

Level 1

Level 1

Level 1

Level 1

Level 1

Level 1

Level 1

Level 1

Level 1

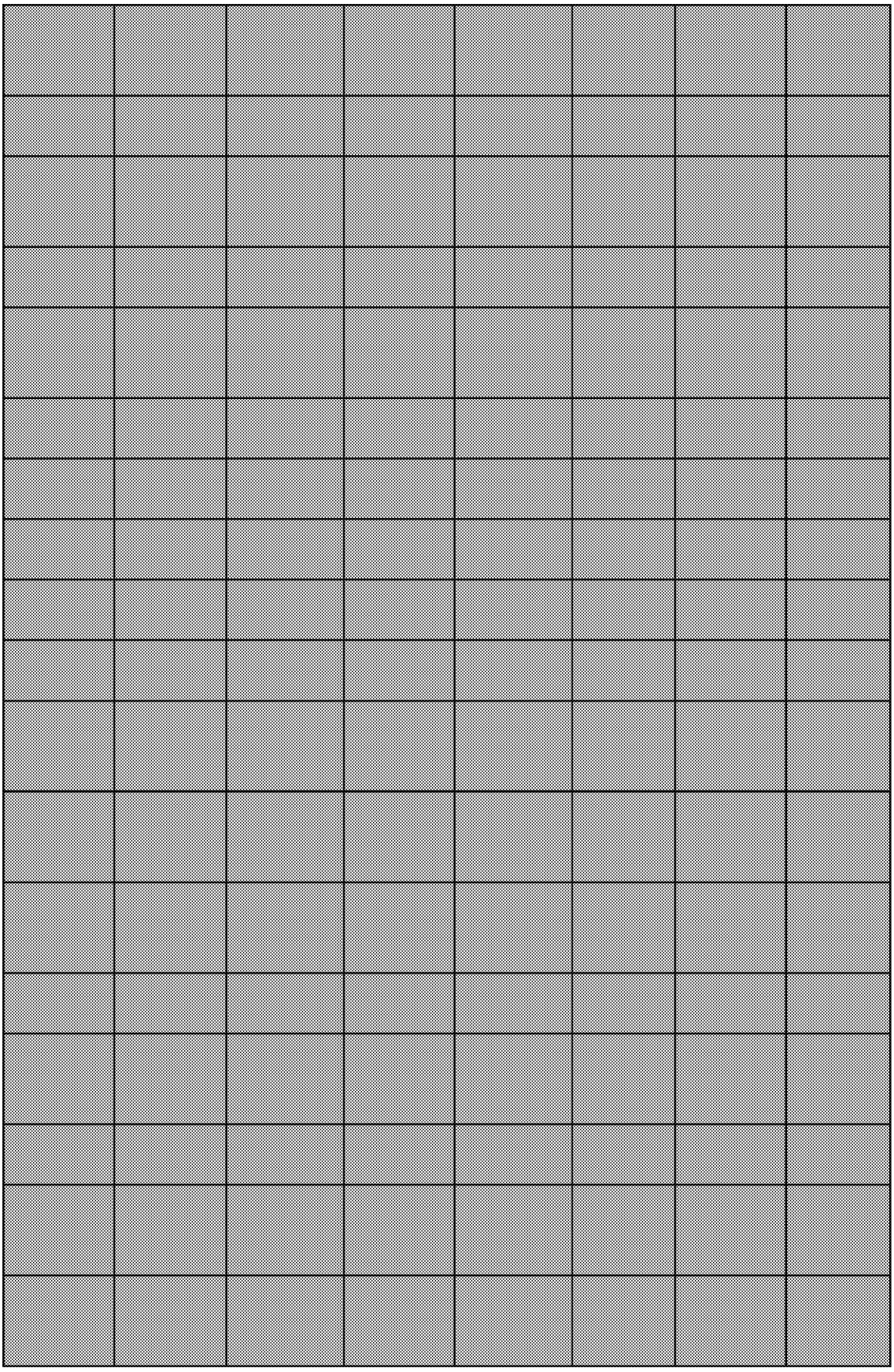
Level 1

Level 1

Level 1

Level 1

Level 1



3803
3804
3805
3806
3807
3808
3809
3810
3811
3812
3813
3814
3815
3816
3817
3818
3819
3820

M. Koehl Pogany. Juvenility of tobacco induced by cytokinin gene introduction decreases susceptibility to Tobacco necrosis virus and confers tolerance to oxidative stress. Physiological and Molecular Plant Pathology. 2004. 65:39-47
T. Rudas Pasternak. Morphogenic effects of abiotic stress: reorientation of growth in Arabidopsis thaliana seedlings. Environmental and Experimental Botany. 2005. 53:299-314
R. Fischer Mascher. Exogenous 2-aminoethanol can diminish paraquat induced oxidative stress in barley (Hordeum vulgare L.). Plant Growth Regulation. 2005. 45:103-112
J. K. Hwang Hong. Induction of enhanced disease resistance and oxidative stress tolerance by overexpression of pepper basic PR-1 gene in Arabidopsis. Physiologia Plantarum. 2005. 124:267-277
L. A. Burgutin Volkova. The effect of paraquat and hypothermia on norflurason-resistant mutants of Arabidopsis thaliana and derived cell cultures. Russian Journal of Plant Physiology. 2005. 52:374-380
S. Kim Sarowar. Overexpression of a pepper ascorbate peroxidase-like 1 gene in tobacco plants enhances tolerance to oxidative stress and pathogens. Plant Science. 2005. 169:55-63
U. Hernandez Artetxe. Do light acclimation mechanisms reduce the effects of light-dependent herbicides in duckweed (Lemna minor)?. Weed Science. 2006. 54:230-236
J. Kim Lee. Molecular cloning and characterization of an early light-inducible gene, BrELIP, from Brassica rapa, and its overexpression protects Arabidopsis. Korean Journal of Genetics. 2006. 28:207-220
A. Gyulai Bittsanszky. RT-PCR analysis and stress response capacity of transgenic gshI-poplar clones (Populus x canescens) in response to paraquat exposure. Zeitschrift Fur Naturforschung C-a Journal of Biosciences. 2006. 61:699-703
S. H. An Lee. Ectopic overexpression of the hot pepper Cat1 in Arabidopsis enhances resistance to paraquat, but not to wounding. Journal of Plant Biology. 2006. 49:421-426
S. Kim Lim. Enhanced tolerance of transgenic sweetpotato plants that express both CuZnSOD and APX in chloroplasts to methyl viologen-mediated oxidative stress and chilling. Molecular Breeding. 2007. 19:227-239
J. K. Choi Hong. Role of a novel pathogen-induced pepper C3-H-C4 type RING-finger protein gene, CaRFP1, in disease susceptibility and osmotic stress tolerance. Plant Molecular Biology. 2007. 63:571-588
Z. S. Huang Sa. Carbon monoxide: A novel antioxidant against oxidative stress in wheat seedling leaves. Journal of Integrative Plant Biology. 2007. 49:638-645
H. B. C. Marur Molinari. Evaluation of the stress-inducible production of proline in transgenic sugarcane (Saccharum spp.): osmotic adjustment, chlorophyll fluorescence and oxidative stress. Physiologia Plantarum. 2007. 130:218-229
Y. T. Kao Hsu. Toxicity in leaves of rice exposed to cadmium is due to hydrogen peroxide accumulation. Plant and Soil. 2007. 298:231-241
Y. H. Lim Kim. Differential expression of 10 sweetpotato peroxidases in response to sulfur dioxide, ozone, and ultraviolet radiation. Plant Physiology and Biochemistry. 2007. 45:908-914
A. Inal Gunes. Effect of drought stress implemented at pre- or post-anthesis stage on some physiological parameters as screening criteria in chickpea cultivars. Russian Journal of Plant Physiology. 2008. 55:59-67
T. E. Valle Scarpeci. Rearrangement of carbon metabolism in Arabidopsis thaliana subjected to oxidative stress condition: an emergency survival strategy. Plant Growth Regulation. 2008. 54:133-142

Tobacco necrosis virus (TNV) susceptibility of a cytokinin overproducing tobacco line (CTKm) transformed with a CaMV 3
Abiotic stress responses include changes in physiological and biochemical processes as well as morphological and develo
Effects of unfavourable environmental conditions (stresses) induce stressor specific and unspecific short- and long-term
The pathogen- and ethylene-inducible pepper-basic pathogenesis-related (PR)-1 gene, CABPR1, was strongly expressed i
A tolerance to paraquat (PQ) of plants and cell cultures of Arabidopsis thaliana mutants, nfz18 and nfz24, obtained by ch
In order to determine the role of ascorbate peroxidase, an antioxidant enzyme, in the cellular responses to oxidative stre
This research studies whether photoprotection mechanisms are able to counterbalance the short-term effect of two herb
The gene encoding for the early light-induced protein (ELIP), which confers tolerance against photo-oxidative stress cond
Stress response capacity (Fv/Fm at 690 nm and F690/F735 at F-max) of untransformed hybrid poplar, Populus x canescen
We constructed transgenic Arabidopsis plants that over-express hot pepper CaCat1 to gain more insight into that gene's
Oxidative stress is one of the major factors causing injury to plants exposed to environmental stress. Transgenic sweetpo
Limited information is available about the roles of RING-finger proteins in plant defense. A pepper CaRFP1 encoding the
Carbon monoxide (CO), an endogenous signaling molecule in animals, also provides potent cytoprotective effects includi
Proline accumulates in a variety of plant species in response to stresses such as drought, salinity and extreme temperatu
The production of H(2)O(2) in detached rice leaves of Taichung Native 1 (TN1) caused by CdCl(2) was investigated. CdCl(2
Secretory class III plant peroxidase (POD, EC 1.11.1.7) is believed to function in diverse physiological processes, including
Drought is one of the most important factors limiting chickpea production in arid and semi-arid regions. There is little inf
Studies of oxidative stress in plants began several years ago, although many aspects of the antioxidant response are still

Not Relevant
Not Relevant
Not Relevant
Not Relevant
Not Relevant
Not Relevant
Not Relevant
Not Relevant
Not Relevant
Not Relevant
Not Relevant
Not Relevant
Not Relevant
Not Relevant
Not Relevant
Not Relevant
Not Relevant
Not Relevant
Not Relevant