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[Sci-tech Education] Girls' Senior High School Students Excelled at Taiwan International Science Fair [Sci-tech Education] Girls' Senior High School Students Excelled at Taiwan International Science Fair (Chinese Version)

National Taiwan Science Education Center Newsletter & CNA (2012/02/10) 242 contestants from 17 countries took part in the award ceremony of 2012 Taiwan International Science Fair (TISF) at National Taiwan Science Education Center on February 10. Three Students from Taipei First Girls' High School and National Taichung Girls' Senior High School won Youth Science Award and received the award from President Ying-jeou MA.

Taiwan International Science Fair is an annual science exhibition and contest for students between the third grade at junior high school and the third grade at senior high school from all over the world. According to National Taiwan Science Education Center, this year, the fair has collected 135 pieces of works and 244 students from 17 countries. 41 professors from universities and research institutes formed a review board, and, via a two-stage review process on February 8 and 9, selected 84 winners in the fields of "mathematics," "physics and space science," "chemistry," "geoscience," "animal sciences," "botany," "microbiology," "biochemistry," "medicine and health," "engineering," "computer science," and "environment science." The winners from Taiwan included 9 first prizes, 11 second prizes, 11 third prizes and 25 fourth prizes; the winners from abroad included 2 first prizes, 6 second prizes, 8 third prizes and 12 fourth prizes. The students, schools and instructors of the winning works will receive certificates, trophies and prizes. Besides, 21 representative works for Taiwan to participate in the international science contests in the U.S., Russia, Canada, Hong Kong and Singapore were selected among the local winning works as well.

Three works were selected as the Youth Science Award winners this year, and two of them were works by girls' high school students from Taiwan. One is by Pinhan WANG (王品涵) and Chiarong HSU (許嘉容) at Taipei Girls' High School, a study on the impact of the different genetic expressions of LWD1/2 on different tissues on Arabidopsis's biological clock. The other is by Haochen WANG (王顥蓁) and Yunchu CHEN (陳韻竹) at National Taichung Girls' Senior High School, a study on the sudden stratospheric warming phenomenon in the northern hemisphere by means of FORMOSAT-3's air temperature data.

WANG and HSU's work on the impact of the different genetic expressions of LWD1/2 on different tissues on Arabidopsis's biological clock investigated the variation of the genetic expression of LWD1/2 respectively on the tissues of Arabidopsis's vascular bundles and leaves and the variation's impact on Arabidopsis's biological clock. According to National Taiwan Science Education Center Newsletter, the work is interesting and is believed to possess a potential of wide range innovative and valuable applications in agriculture.

WANG & CHEN's study on the sudden stratospheric warming (SSW) phenomenon in the northern hemisphere by means of FORMOSAT-3's air temperature data indicated that the phenomenon becomes conspicuous between the late winter and early spring; the phenomenon is not obvious in the lower air but obvious in the higher air above 30 km; the reaction to SSW is less rapid in lower latitude area, while in the area northern than 40 degrees north, the reaction is in direct proportion to the latitude.

According to the fair council, the contestant works this year showed that the global issues and realtime news were more noted, while the statistical analysis was more widely used. Besides, the application of the molecular methods in the field of biology also became more matured. In average, according to the chair of the council Rongyao LIN (林榮耀), we saw many excellences such as transcendent performance, creativity and applicability in most of the works this year, and the contestants all had done a great job.

Reference: International Taiwan Science Education Center Newsletter 2012/02/10 (Chinese) CNA 2012/02/10 (Chinese)

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