ICOM11 Participation Report

(ICOM11 参加報告書)

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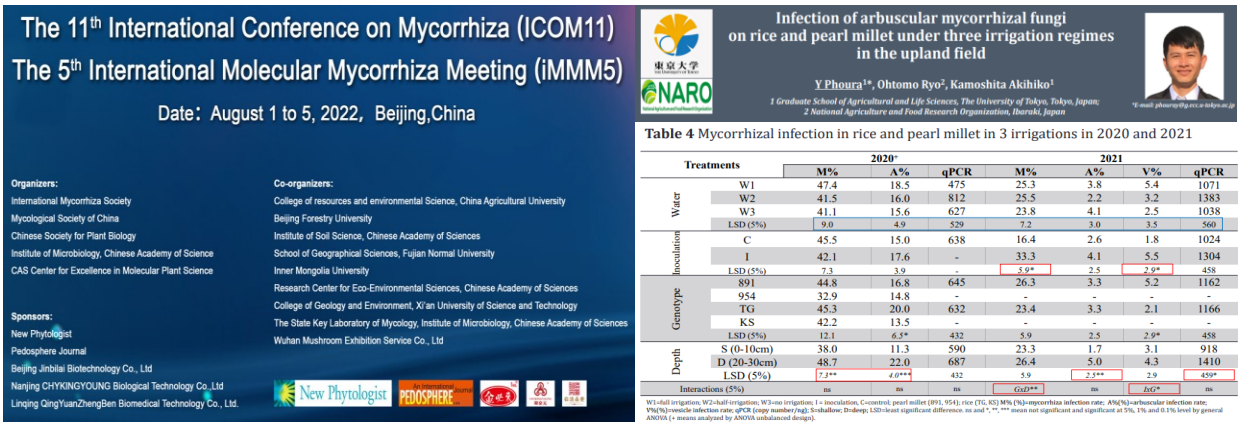
This is a participation report of ICOM11 from Y Phoura, a third-year doctoral student from The University of Tokyo. ICOM11 was abbreviated from "The 11th International Conference on Mycorrhiza". With partial financial support from JCOM, I joined the international conference for the first time and the first time held online via Zoom Meeting from August 1 to 5, 2022, in Beijing, China (Fig. **1**). The conference was divided into three main parts: plenary speech, poster session, and oral session. I presented my two-year research data in one of the 11 poster sessions, Mycorrhiza & Agriculture.

My poster's title was "Infection of arbuscular mycorrhizal fungi on rice and pearl millet under three irrigation regimes in the upland field." The study aimed to investigate the conservativeness of the infection to different irrigation regimes under the upland. The results showed that the infection rates by microscopic observation and molecular quantification were conservative regardless of irrigation regimes (Fig. **1**), although plant growth and mycorrhizal communities (not shown) were reduced or changed when reducing from full-irrigation (W1) to half- and no-irrigation (W2, W3). The results also showed inoculation increased infection rates, and roots at 20-30 cm depth were more infected than roots at 0-10 cm.

Although I could not virtually present the poster to any particular audience, I learned several things from the conference. First, I could at the first time summarize my data from upland experiments 2020-2021, one of the four major experiments in my doctoral study, and present it at the international conference. Second, I have got to know many researchers in the field of mycorrhiza, including arbuscular mycorrhizal fungi. Third, last but not least, I learned about new research updates; for example, I found two of the most relevant research by Salomon et al. (2022), presenting the evaluation of commercial inoculants, and by Ramana et al. (2022), showing increasing root diameter reducing root mycorrhizal diversity (link in Fig. **1**).

Finally, thank you, JCOM11, as the experience could not have been attained without your support.



Treatments		2020*			2021			
		M%	A%	qPCR	M%	A%	V%	qPCR
Water	W1	47.4	18.5	475	25.3	3.8	5.4	1071
	W2	41.5	16.0	812	25.5	2.2	3.2	1383
	W3	41.1	15.6	627	23.8	4.1	2.5	1038
	LSD (5%)	9.0	4.9	529	7.2	3.0	3.5	560
Inoculation	C	45.5	15.0	638	16.4	2.6	1.8	1024
	I	42.1	17.6	-	33.3	4.1	5.5	1304
	LSD (5%)	7.3	3.9	-	5.9*	2.5	2.9*	458
Genotype	891	44.8	16.8	645	26.3	3.3	5.2	1162
	954	32.9	14.8	-	-	-	-	-
	TG	45.3	20.0	632	23.4	3.3	2.1	1166
	KS	42.2	13.5	-	-	-	-	-
	LSD (5%)	12.1	6.5*	432	5.9	2.5	2.9*	458
Depth	S (0-10cm)	38.0	11.3	590	23.3	1.7	3.1	918
	D (20-30cm)	48.7	22.0	687	26.4	5.0	4.3	1410
	LSD (5%)	7.3**	4.0***	432	5.9	2.5**	2.9	459*
Interactions (5%)		ns	ns	ns	GxD**	ns	IxG*	ns

W1=full irrigation; W2=half-irrigation; W3=no irrigation; I = inoculation, C=control; pearl millet (891, 954); rice (TG, KS) M% (%)=mycorrhiza infection rate; A%(%)=arbuscular infection rate; V%(%)=vesicle infection rate; qPCR (copy number/ng); S=shallow; D=deep; LSD=least significant difference. ns and *, **, *** mean not significant and significant at 5%, 1% and 0.1% level by general ANOVA (+ means analysed by ANOVA unbalanced design).

Fig.1 ICOM11 banner (left) and poster (Y et al., 2022) in Mycorrhiza & Agriculture poster session (right). ICOM11 agenda, abstract and poster exhibition could still be accessible at icom11.casconf.cn